4. A Monograph of *Limnaina* and *Euplœina*, two Groups of Diurnal Lepidoptera belonging to the Subfamily Euplœinæ; with Descriptions of new Genera and Species. By F. Moore, F.Z.S., A.L.S., &c.

Part I. *Limnaina*.

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(Plates XXIX–XXXII.[1])

The group of Butterflies here monographed has, by modern authors, been arranged under the subfamily name of Danainæ. By Linnæus (Syst. Nat. 1758, p. 470) they were placed in the second division of his Papiliones Danai, namely in that of the *D. festivi*, his first division, containing the "Whites" or modern Pierinæ, being the *D. candidi*.

Esper in 1777 (Die Schmett. i. p. 53) having figured several species of Pierinæ under the generic term *Danaus*, both Fabricius (Ent. Syst. iii. p. 39, 1793) and Weber (Nomen. Ent. pp. 99, 106, 1795) having also entirely separated the *D. festivi* from the *D. candidi* under the name of *Festivi*, and Cuvier (Tableau Elément. p. 590, 1798) having cited species of Pierinæ only as Danai, it follows that these authors, having thus restricted the Danai of Linnæus to the *D. candidi* (or modern Pierinæ), the term "Danainæ" cannot be retained for the present subfamily.

The following summary of the labours of subsequent authors will help to show the progress made in the study of this interesting group of Butterflies.

Latreille in 1805 (Hist. Nat. des Crust. et Insectes, xiv. p. 108) established his genus *Danaida*, giving as the type *Papilio plexippus* (one of the species mentioned in the Linnean division *D. festivi*), and citing America as the habitat of that species. In 1807 he altered this name to *Danais*, and in 1809 to that of *Danaus*[2].

In 1807 Fabricius (Illiger's Mag. vi. p. 280) established his genus *Euplœa*, giving as the types the *P. plexippus* and *P. similis* of Linnæus, and *P. corus*, a species of his own.

Hübner (Verz. bek. Schmett. pp. 14–17, 1816) arranged the group of the then described species in his second Stirps of the tribe Nymphales, under the name of Limnades—equivalent to the Linnean *Danai festivi* and the Fabrician *Festivi*—his first stirps being the Nereides, comprising the Heliconii of the later authors. The species known to him are divided into three sections, the first and second being equivalent to the *Danais* and *Hestia* of Doubleday, and the third to *Euplœa* of the same author; the species of the first and second sections are arranged under the briefly characterized genera *Amauris*, *Hestia*, *Euplœa*, and *Anosia*, those of the third section under *Trepsichrois*, *Crastia*, and *Salpinx*.

[1] Plates XXIX.–XXXII. will be givena long with Part II. of the present paper, read May 1st.

[2] See notes to genus *Anosia*, p. 234 *postea*.

In 1819 Godart, in vol. ix. of the 'Encyclop. Méthodique,' re-described the then known species, under the genus *Danais*.

The next author in point of date is Horsfield, who, in 1828, published the first part of the 4to Catalogue of the Lepidoptera in the Museum of the East-India Company, and on plate 3 of that work contributed illustrations of the larvæ of five species which he reared in Java.

In 1836, Boisduval ('Species général des Lépidoptères,' p. 165) arranges the group in his seventh family of the Rhopalocera.

Doubleday and Hewitson, in their grand work 'The Genera of Diurnal Lepidoptera,' p. 84 etc. (1847), limited the Danaidæ to the three genera *Euplœa*, *Danais*, and *Hestia*, placing *Hamadryas* at the end of the family Heliconidæ. In *Euplœa* the species enumerated are 37 in number; and these are arranged in succession, mostly according to the presence of the "sexual mark" or, as it is termed, "vitta" on the inner margin of the fore wing in the male. In *Danais*, these authors arrange the species into four unnamed groups, which they state to be "easily distinguished in general by the form and markings of the wings, independently of slight structural differences." The first group contains the species named *phædon*, *ægialea*, *echane*, *niavius* and its allies, "all African species, the males of which have a patch of peculiarly formed scales situated on the submedian nervure of the hind wing." The second group is composed mostly of the fulvous species, which have the sexual spot on the first median nervule, viz. *gilippus*, *erippus*, *chrysippus*, *plexippus*, *affinis*, &c. The third group contains "the species having the sexual spot upon the first median nervule or submedian nervure," viz. *aglea*, *cleona*, *melissa*, *similis*, *limniace*, *juventa*, *tytia*, *albata*, &c. In the fourth group are placed those species in which the sexual spot is absent.

In the Rev. et Mag. Zool. 1853, M. Lucas described several new species of the genus *Euplœa*.

In 1857, in the 8vo Catalogue of Lepidoptera of the East-India Company's Museum, pp. 121 to 135, I enumerated the species of *Danais*, *Euplœa*, *Ideopsis* (n. gen.), and *Hestia* then in the collection, described several new species, and figured various larvæ and pupæ.

In 'Exotic Butterflies,' vols. ii. and iii. 1858–66, Hewitson described and figured some very interesting new species of *Euplœa*.

In 1862, Mr. Bates published, in the Transactions of the Linnean Society, vol. xxiii. part 2, his "Contributions to the Insect fauna of the Amazon valley." In this memoir the systematic positions of the subfamilies Heliconinæ and Danainæ (including the Danaoid Heliconinæ) are most laboriously treated of, the Danaoid Heliconinæ being placed at the head of the Order Lepidoptera. In this memoir also Mr. Bates makes known the extraordinary phenomenon of mimicry occurring in the Heliconidæ and in other families of Butterflies, as well as in Moths.

In his 'Prodromus Systematis Lepidopterorum,' published in 1865, Herrich-Schäffer places the HELICONINA and DANAINA as the first and second families of the Butterflies. In Heliconina, besides

the true Heliconidæ, he groups those genera separated by Mr. Bates as Danaoid Heliconinæ, as well as the genera *Hamadryas*, *Euplœa*, and *Hestia*, restricting the Danaina to the genus *Danais* only.

In January 1866 Mr. Butler (Proc. Zool. Soc. 1866, pp. 43–59) published his "Monograph of the Genus *Danais*." This monograph, which is a revision of the species known to the author at that time, is also accompanied with descriptions and figures of new species contained in the British-Museum collection. All the species are here arranged under *Danais*, which is divided into four uncharacterized numerical sections, as follows:—1st. Section, comprising the *Amauris* group; 2nd section, the American species *berenice*, *gilippus*, &c., *chrysippus*, *plexippus* (*genutia*), and allies; 3rd section, *similis*, *limniace*, *aglea*, *melaneus*, *cleona*, &c.; 4th section, *gaura* and *daos*.

This monograph was followed in March by a Supplement (P. Z. S. 1866, pp. 171–175) enumerating and describing other species, characters being added (founded chiefly upon the colour and pattern) to the four sections as given above.

In May of the same year Mr. Butler published (P. Z. S. 1866, pp. 268–302) a "Monograph of the genus *Euplœa*," containing also descriptions and figures of new species in the British-Museum collection. The species are here arranged under *Euplœa*, which is broken up into ten divisions, characterized by their colour, form, and pattern of markings.

In the following year Mr. Butler also published (Trans. Ent. Soc. 1867, pp. 467–484) a "Monograph of the genus *Hestia*," containing descriptions of new species, and also a tabular résumé of all the species of family Danaidæ then described.

Dr. Felder, in the 'Reise der Novara,' Lepidoptera, part ii., describes and figures a number of species of Danainæ. As the date of publication of this part of the 'Reise der Novara' has been much discussed by Lepidopterists, the following remarks may not here be out of place.

Of part ii. of this work, though it bears the date of 1865 upon the title-page, the actual issue by the publishers appears not to have been effected till the beginning of 1867. There is no entry of it in the 'Zoological Record' for 1865. In the 'Record' for 1866 (published in 1867), the compiler of the list of works on Lepidoptera states (p. 433) that "this part was not procurable in 1866, and that he had been informed that an application for it made in February 1867 was unsuccessful." This is surely sufficient to show that Part ii. was not issued for sale, and therefore *not published*, at the date specified on its title-page. The date there so given may be that of the completion and lettering of the last plates (pl. 47 bearing that of Oct. 1865), which possibly may be considered as being equivalent to our mode of publication.

In 1869 was published the British-Museum "Catalogue of Diurnal Lepidoptera described by Fabricius," compiled by Mr. Butler, in which the species of Danainæ are enumerated, accompanied by the original Fabrician descriptions.

From 1870 to 1877 numerous collections, from various eastern countries, containing new species of Danainæ were received at the British Museum. These were described by Mr. Butler as follows:—

Ann. & Mag. Nat. Hist. ser. 4, vol. v. p. 357, 1870. New species of *Euplœa* and *Danais* from the South-Sea Islands.

Trans. Ent. Soc. 1875, p. 2. Species from Australia of a n. g. *Calliplœa*.

Ditto, 1876, p. 240. Species from New Guinea.

P. Z. S. 1876, p. 765. Species of *Euplœa* and *Calliplœa* from New Guinea.

P. Z. S. 1877, p. 466. The same.

P. Z. S. 1877, p. 810. Species of *Salpinx* from Formosa.

Ann. & Mag. Nat. Hist. ser. 4, vol. xx. 1877, p. 348. *Euplœa* from Lifu, Loyalty Islands.

In 1871 Mr. Kirby issued his 'Syn. Catal. of Diurnal Lepidoptera,' wherein the Danainæ are all arranged under the genera *Hestia*, *Ideopsis*, *Danais*, *Euplœa*, and *Hamadryas*, which are followed by the genera of Danaoid Heliconinæ.

Hoppfer (Stettin. ent. Zeit. 1874) described some new species of Danainæ from Celebes.

Mr. Druce, in Proc. Zool. Soc. 1873 & 1874, described some Siamese and Bornean species.

Mr. Salvin and Mr. Godman also received several very interesting collections, contributing descriptions of the Danainæ as follows :—

P. Z. S. 1877, p. 140. New Euplœas from Duke-of-York Island.

P. Z. S. 1878, pp. 643, 733. *Danais* and *Euplœa* from New Guinea, New Ireland, and New Britain.

P. Z. S. 1879, p. 155. The same.

P. Z. S. 1880, p. 183. A new *Danais* from E. Africa.

Kirsch, in Mitth. Mus. Dresden, i. (1877), contributes descriptions and figures of several new species from Papua.

In 1878 a memoir on the "Butterflies hitherto referred to the genus *Euplœa*" was published in the Journ. Linn. Soc., Zool. vol. xiv. pp. 290–303, by Mr. Butler. In this paper the species are arranged under seven genera, three of which are new, the peculiar "sexual mark," or scent-producing organ of the male insect, being taken, for the first time, as the character for their separation.

In the 'Biologia Centrali-Americana' (1879) Messrs. Salvin and Godman enumerate and describe the species of Danainæ occurring in that region.

In part 1 of my 'Lepidoptera of Ceylon,' published in 1880, are described and figured the species inhabiting that island. In this work these species are arranged under ten genera, seven of which are new, the "sexual mark" being used as the primary character for the genera.

In 1882 (Ann. Nat. Hist. ser. 5, vol. x. p. 36) Mr. Butler contributes additional descriptions of twelve new species of Danainæ from Duke-of-York Island and New Britain.

In 1882 Mr. Distant published part 1 of his 'Rhopalocera Malayana,' wherein are fully described and figured all the species

found in the Malay peninsula. These are arranged under the five genera *Hestia*, *Ideopsis*, *Radena*, *Danais*, and *Euplœa*, the two latter genera being further separated into sections, founded upon the "sexual mark" of the male.

The last work to be enumerated is the 'Lepidoptera of India, Burmah, and Ceylon,' published at Calcutta in 1882, by Major Marshall and L. de Nicéville. These authors give copious details of the characters of the subfamily Danainæ, keys for the determination of the genera and species, and very ample descriptions of the several genera and species, which are also accompanied with notes on their habits and geographical distribution, together with some exceedingly well-executed figures. By these authors the Danainæ are divided into the four genera *Hestia*, *Ideopsis*, *Danais*, and *Euplœa*, the two latter genera being sectionized into named groups, which are based on the "sexual mark" in the males, as pointed out and named by Mr. Butler and myself.

When studying this subfamily of Butterflies in 1879, preparatory to describing the species for my work on the Lepidoptera of Ceylon, I separated the whole of the species then in my collection into groups, according to the presence and position of the "sexual mark" or "scent-producing organ" in the male insect. Having thus separated the species into such groups, I was then much surprised to observe that this operation had placed before me several species in each group which bore an extraordinary resemblance, in the pattern of the markings on the wings, to certain species which I had arranged in the other groups.

Having thus taken these "sexual marks" or, as they are now known to be, "scent-producing organs" as the primary structural character for separating the species of the old genus *Danais* and *Euplœa* into minor generic groups, these assemblies of species, thus grouped, brought to my mind at once the fact that here were evident illustrations of a form of mimicry occurring between closely related groups, and that, too, *within* a protected family of Butterflies, or, more extraordinary still, *between species of the same genera*, as it would then appear, if the species are restricted to *Danais* and *Euplœa* respectively.

At that time I had forgotten that this phenomenon of mimicry *between related genera* had been observed by my friend Mr. Bates among the Danaoid Heliconidæ; but subsequently, on again working with his memoir in the Linnean 'Transactions' before me, I became aware of his discovery.

This analogous form of mimicry, occurring in *Danais* and *Euplœa*, had, however, not previously been recorded. Certain species, it is true, when being described, were noted by Mr. Butler as having a resemblance to certain other isolated species.

Since my own observations were thus made, I have had the opportunity of showing and pointing out some of these mimetic groups in *Euplœa* to my friends Mr. Bates, Mr. Meldola, Mr.

Distant, and others; and these facts have since served as materials for discussion in certain recent articles on mimicry in Butterflies[1].

The extent to which this form of mimicry exists among the species of the old genera *Danais* and *Euplœa* will be better understood by an examination of the accompanying Tables of the five primary groups into which I have divided each of these old genera.

In these Tables the names of certain genera and species in each of these five groups are given, and the names of those genera and species, *inhabiting the same locality*, which imitate them.

These Tables were chiefly compiled from actual inspection of the several species, chiefly at the British Museum, where I had a good opportunity, by the kindness of the officers of the Zoological Department, of examining (mostly at the same time), besides the contents of their own cabinets, together with those in my own collection, Boisduval's types, Lucas's types, several of Dr. Felder's types, a large series from the collections of M. Oberthür, G. Semper, and Messrs. Salvin and Godman, all of which were most generously confided to my care for examination[2].

This imitative character pervades all the groups into which I have divided the species hitherto arranged under *Danais* and *Euplœa*; and, in the EUPLŒINA, so far as I have yet verified by actual comparison, it would appear most numerously so in Group A (see Table II.), the males of which have *no "sexual mark"* or "scent-producing organ" on the upper side of the wings, in Group B (see Table III.), the males of which possess *one "sexual mark" on the fore wing*, in Group D (see Table V.), the males of which possess *one "sexual mark" on the fore wing and a glandular patch on the hind wing*, and in Group E (see Table VI.), in which, though it contains only three genera, the species are numerously mimicked. The least amount of imitativeness yet observed and verified appears in Group C (see Table IV.), the males of which possess a *glandular patch on the hind wing* only.

On further analysis Table I. shows that, in the LIMNAINA, of the five groups into which the old genus *Danais, Hestia*, &c., have been divided, a certain number of the species are mimicked by others within these groups. These instances are but few, considering the large number of species therein, and show most clearly their highly protected condition.

Table I. A. embraces the names of certain species of the old genus *Danais* that are mimicked by species of the old genus *Euplœa*. The few species here noted would appear to indicate how small must be the necessity for attainment of further protection in the numerous species of these two highly protected genera.

Table II., Group A (*no sexual mark*). Of the 13 genera into which I have divided the species embraced within it, the second

[1] See W. L. Distant, Rhop. Malayana, p. 33 (1882); R. Meldola, Ann. Nat. Hist. 1882, vol. x. p. 417; W. L. Distant, Ann. Nat. Hist. 1883, vol. xi. p. 43. See also Wallace, 'Nature,' May 25, 1882.

[2] These Tables could have been much extended had it been possible to have brought the above collections together at the present moment.

genus is mimicked by a species in one of the groups into which the old genus *Danais* has been separated; of the others, 11 genera are mimicked by species of the other groups into which the old genus *Euplœa* has been divided.

In Table III., Group B (*one "sexual mark" on the fore wing*) is divided into 15 genera: 11 of these are mimicked by species of the other groups.

In Table IV., Group C (*glandular patch on the hind wing only*) is divided into 4 genera, 3 of which are mimicked by species of the other groups.

In Table V., Group D (*one sexual mark on the fore wing, and a glandular patch on the hind wing*) is divided into 12 genera, 9 of which are mimicked by species of the other groups.

In Table VI., Group E (*two sexual marks on the fore wing*) is divided into 3 genera, each of which genera and mostly all the species, are mimicked by species of the other groups.

Following these Tables I have drawn out one (Table VII.) in which are given "*typical examples of a mimetic set of species*, collated from each of the five groups into which *Euplœa* has been primarily divided. This Table also shows a comparative view of their structural characters.

Table I.—Mimetic Species in Limnaina.

No sexual mark or scent-producing organ in hind wing of male.	One sexual mark on sub-median vein.	One sexual mark between median and submedian veins.	Two sexual marks, median and submedian veins.	Two sexual marks, sub-median and internal veins.	Locality.
Ideopsis anapsis	.....	.....	Ravadeba phyle.	.....	Luzon.
—— chloris	.....	.....	R. cleone ...	.....	Celebes.
	Amauris, sp.?	Melinda formosa.	.....	.....	E. Africa.
Radena similis	.....	Tirumala limniace.	.....	.....	China, Formosa.
—— exprompta	.....	T. limniace..	.....	Chittira fumosa	Ceylon.
—— vulgaris	.....	T. melissa ...	.....	.....	Java.
—— juventa.....	.. ...	T. conjuncta.	.....	.....	Java.
—— luzonica	.....	T. orientalis.	.....	.....	Luzon.
—— ishma	.....	T. ishmoides.	.....	.....	Celebes.
			Parantica grammica	Caduga larissa.	Java.
			P. melanoides	C. melaneus..	N.E. India.
			P. aglea	C.nilgiriensis	Malabar.

Table I. A.—Mimetic Species between Limnaina and Euplœina.

Limnaina.	Euplœina.					Locality.
	Group A.	Group B.	Group C.	Group D.	Group E.	
Ideopsis vitrea ...	.....	Bibisana configurata.	.....	.....	.....	Celebes.
Berethis phædon	Vonona euphon.	.....	.....	.....	.....	Mauritius.
Salatura ferruginea.	.....	Rasuma guerinii.	Calliplœa jamesii.	.....	Stictoplœa doleschallii	N. Guinea.
—— insolata.....	.....	Chirosa brenchleyi.	.....	.....	.....	Solomon Isles.
—— mytilene ...	Patosa funerea.	.....	.....	.....	.....	N. Guinea.
—— biseriata ...	.....	Crastia illudens.	.....	.....	.....	Duke-of-York Isles.
Tirumala septentrionis.	.....	.....	Trepsichrois linnæi ♀.	.....	.....	India, Burmah, Malacca.
—— melissa	.....	.....	T. claudia ♀.	.....	.....	Java.
—— orientalis ...	.....	.....	T. diocletia ♀.	.....	.....	Luzon.

Table II.—Mimetic Species in Euplœina (Group A.).

Group A.	Group B.	Group C.	Group D.	Group E.	Locality.
Vonona euphon [1]	.....	.....	.....	.....	Mauritius.
Niparia helcita	Chanapa corinna.	Calliplœa niveata.	.....	Doricha sylvester.	New Caledonia, N. Australia.
Gamatoba nox	.....	.....	.....	Stictoplœa pulla.	Aru Islands.
Patosa batesii	Chirosa pierretii.	.....	.....	S. immaculata.	New Guinea.
Oranasma lugens	Andasena orope.	Calliplœa hyems.	.....	.....	New Guinea, Timor.
Tronga crameri.....	A. suluana.	.....	Isamia ægyptus.	.....	N. Borneo.
—— brookei	.....	.....	I. lowei	.....	Borneo.
—— bremeri.....	Crastia distantii.	.....	I. chloe.	.....	Malay peninsula.
—— marsdeni	.....	.....	I. singapura.	.....	Singapore.
—— moorei	.....	.....	I. sophia ...	.....	Sumatra.
—— kinbergii	C. amymone.	.....	.....	.....	China.
Sariboa grayi.....	Chirosa vicina.	....	Hirdapa assimilata.	.....	Aru.
Vadebra climena	Betanga duponchelii.	.....	.....	.....	Amboyna, Ceram.
—— honesta.....	.....	... ..	Saphara ænea	.....	Solomon Islands.
Gamatoba alecto	B. megæra ...	.....	.....	.....	Ceram.
—— cerberus	Crastia illudens.	.....	.....	.....	New Ireland.
Menama tavayona ...	Penoa limborgii.	.....	Isamia margarita.	Stictoplœa harrisii.	British Burmah.

[1] Mimicked by *Berethis phædon*. See Table I. A.

Group A.	Group B.	Group C.	Group D.	Group E.	Locality.
Menama buxtonii	P. Pinwillii .	.....	.....	.....	Sumatra.
Sabanasa cratis.....	.....	Trepsichrois diocletia.	.....	.....	Philippines.
Adigama ochsenheimeri.	.....	Euplœa gyllenhalii.	Tiruna ochsenheimeri.	.....	Java.
—— malayica	.....	E. phœbus.	.....	.....	Malay peninsula.
—— scudderi	.....	E. butleri.	.....	.....	Borneo.

Table III.—Mimetic Species in Euplœina (Group B.).

Group B.	Group A.	Group C.	Group D.	Group E.	Locality.
Chanapa corinna	Nipara helcita.	Calliplœa niveata.	.....	Doricha sylvester.	N. Australia.
Andasena eleutho.....	.....	.....	.....	D. pelor	Australia.
—— orope.....	Oronasma lugens.	C. hyems ...	.....	.....	Timor, New Guinea.
—— lucasii	.....	.....	Nacamsa meldolæ.	.....	Mindanao.
—— swainsonii.....	.....	.....	N. simillima.	.....	Luzon.
—— suluana.....	Tronga crameri.	.....	Isamia ægyptus.	.....	N. Borneo.
Bibisana horsfieldii ...	.....	.....	Selinda vollenhœvii.	.....	Celebes.
—— diana.....	.....	.....	Tabada hyacintha.	.....	Celebes.
Betanga duponchelii...	Vadebra climena.	.....	.....	.....	Amboyna, Ceram.
—— megæra.....	Gamatoba alecto.	.....	.....	.....	Ceram.
Penoa deione.....	.....	Trepsichrois linnæi, ♂.	Isamia splendens.	Stictoplœa binotata.	N.E. Bengal.
—— limborgii	Menama tavoyana.	.....	I. margarita.	S. harrisii ...	British Burmah.
Crastia core	.....	.....	Pademma kollari.	Narmada coreoides.	India.
—— asela	.....	.....	P. sinhala ...	N. lankana...	Ceylon.
—— grammifera	.....	.....	Isamia chloe.	.....	Malay peninsula.
—— inconspicua	.....	.....	.....	Stictoplœa inconspicua	Sumatra.
—— distantii	Tronga bremeri.	.....	I chloe	.....	Malay peninsula.
—— amymone	T. kinbergii .	.....	.....	.....	China.
—— illudens.....	Gamatoba cerberus.	.....	.....	.....	New Ireland.
Mabintha subdita.....	.....	.....	Pademma masoni.	.....	Tenasserim.
Chirosa brenchleyi ...	.....	.....	Hirdapa imitata.	.....	Solomon Is.
—— eurypon	.....	.....	H. fraterna. .	.....	Ke Islands.
—— vicina	Sariboa grayi	.....	H. assimilata	.....	Aru.
—— pierretii	Patosa batesii.	.....	.....	.....	New Guinea.
Karadira andamanensis.	.....	.....	Tiruna rœpstorfii.	.....	Andamans.
Rasuma violetta	.....	Calliplœa jamesii.	.....	S. doleschallii.	New Guinea.

Table IV.—Mimetic Species in Euplœina (Group C).

Group C.	Group A.	Group B.	Group D.	Group E.	Locality.
Calliplœa niveata.....	Nipara helcita.	Chanapa corinna.	.....	Doricha sylvester.	N. Australia, New Caledonia.
—— pollita	.....	.....	.....	Stictoplœa lætifica.	Philippines.
—— hyems	Oronasma lugens.	Andasena orope.	.....	.....	Timor, New Guinea.
—— mazares	.....	.....	Selinda elusina.	.....	Java.
—— ledereri	.....	.....	Salpinx lazulina.	.....	Malacca.
—— jamesii	.....	Rasuma violetta.	.....	S. doleschallii	New Guinea.
Trepsichrois linnæi ♂	.....	Penoa deione	Isamia splendens	S. binotata...	N.E. Bengal.
—— diocletia ♂	Sabanasa cratis.	.....	.....	.....	Philippines.
—— mulciber ♂	.....	.....	.....	S. tyrianthina	Borneo.
Euplœa gyllenhalii ...	Adigama ochsenheimeri.	.....	Tiruna ochsenheimeri.	.....	Java.
—— phœbus.....	A. malayica.	.....	.....	.....	Malay peninsula.
—— butleri	A. scudderi.	.....	.....	.... .	Borneo.

Table V.—Mimetic Species in Euplœina (Group D).

Group D.	Group A.	Group B.	Group C.	Group E.	Locality.
Saphara ænea	Vadebra honesta.	.....	.....	.....	Solomon Islands.
Tabada hyacintha ...	.....	Bibisana diana.	.....	.....	Celebes.
Selinda elusine	.....	.....	Calliplœa mazares.	.....	Java.
—— vollenhövii	.....	Bibisana horsfieldii.	.....	.....	Celebes.
—— mneiszeckii	.....	.....	.....	Stictoplœa gloriosa.	Celebes.
Hirdapa imitata	.....	Chirosa brenchleyi.	.....	.....	Solomon Islands.
—— fraterna	.....	C. eurypon...	.....	.....	Ké Island.
—— assimilata	Sariboa grayi.	C. vicina ...	.....	.....	Aru.
Salpinx vestigiata	.....	.....	.....	Stictoplœa picina.	Sumatra.
—— lazulina	.....	.....	Calliplœa ledereri.	.....	Malacca.
Isamia margarita.....	Menama tavoyana.	Penoa limborgii.	.....	Stictoplœa harrisii.	British Burmah.
—— ægyptus	Tronga crameri.	Andasena suluana.	.....	.....	N. Borneo.
—— lowei	T. brookei ...	.....	.....	.....	Borneo.

TABLE V. (*continued*).

Group D.	Group A.	Group B.	Group C.	Group E.	Locality.
Isamia chloe	T. bremeri ...	Crastia distantii & C. grammifera.	.....	.....	Malay peninsula.
—— singapura	T. marsdeni .	.....	.....	.....	Singapore.
—— sophia	T. moorei ...	.....	.....	.....	Sumatra.
—— splendens.....	.....	Penoa deione.	Trepsichrois linnæi ♂.	Stictoplœa binotata.	N.E. Bengal.
Pademma kollari	.....	Crastia core.	.....	Narmada coreoides.	India.
—— sinhala	.....	C. asela	.....	N. lankana...	Ceylon.
—— unasoni	.....	Mahintha subdita.	.....	.....	Tenasserim.
Nacamsa meldolæ ...	.....	Andasena lucasii.	.....	.....	Mindanao.
—— simillima	.....	Andasena swainsoni.	.....	.....	Luzon.
Tiruna rœpstorffii ...	.....	Karadira andamanensis.	.....	.....	Andamans.
—— ochsenheimeri ...	Adigama ochsenheimeri.	.....	Euplœa gyllenhalii.	.....	Java.

Table VI.—MIMETIC SPECIES IN EUPLŒINA (GROUP E).

Group E.	Group A.	Group B.	Group C.	Group D.	Locality.
Doricha sylvester.....	Nipara helcita.	Chanapa corinna.	Calliplœa niveata.	.....	New Caledonia, Australia.
—— pelor	.....	Andasena eleutho.	.....	.....	Australia.
Stictoplœa pulla	Gamatoba nox.	.....	.....	.....	Aru Islands.
—— immaculata	Patosa batesii.	Chirosa pierrettii.	.....	.. ...	New Guinea.
—— harrisii	Menama tavoyana.	Penoa limborgii.	.....	Isamia margarita.	British Burmah.
—— binotata	.....	P. deione	Trepsichrois linnæi ♂.	I. splendens.	N.E. Bengal.
—— inconspicua	.....	Crastia inconspicua.	.....	.....	Sumatra.
—— picina	.....	.....	.....	Salpinx vestigiata.	Sumatra.
—— tyrianthina	.....	.....	Tr. mulciber ♂.	.....	Borneo.
—— lætifica	.....	.....	Calliplœa pollita.	.....	Philippines.
—— gloriosa	.....	.....	.....	Selinda miniszeckii.	Celebes.
—— doleschallii	.....	Rasuma violetta.	C. jamesii.	.....	New Guinea.
Narmada lankana. ...	.....	Crastia asela.	.....	Pademma sinhala.	Ceylon.
—— coreoides	.....	C. core.	.....	P. kollari.	India.

Table VII.—Typical Examples of the Mimetic Species in the various Groups of Euplœina.

Habitat.	Groups.	Structural Characters.					
		Sexual mark	Exterior margin	Posterior margin	Upper discocellular	Lower discocellular	Discocellular veinlet
	Group A.						
Malay peninsula.	Tronga bremeri	none.	uneven.	very convex.	bent.	perfect.	from upper.
	Crastia distanti	one on fore wing.	uneven.	convex.	bent.	perfect.	from upper.
	Isamia chloe	one on fore wing and patch on hind wing.	uneven.	convex.	bent.	perfect.	from upper.
	Group B.						
India.	Crastia core	one on fore wing.	uneven.	nearly straight.	bent.	perfect.	from upper.
	Pademma kollari	one on fore wing and patch on hind wing.	oblique.	convex.	concave.	perfect, concave.	none.
	Narmada coreoides	two on fore wing.	oblique.	slightly convex.	bent.	perfect.	from upper.
	Group C.						
N.E. India.	Trepsichrois linnæi	a patch on hind wing.	uneven.	slightly convex.	bent.	perfect.	from upper.
	Penoa deione	one on fore wing.	convex.	convex.	bent.	perfect.	from upper.
	Isamia splendens	one on fore wing and patch on hind wing.	oblique.	convex.	bent.	perfect.	from upper.
	Stictoplœa binotata	two on fore wing.	convex.	convex.	bent.	perfect.	from upper.
	Group D.						
British Burmah.	Isamia margarita	one on fore wing and patch on hind wing.	oblique. uneven.	very convex.	bent.	perfect.	from upper.
	Menama tavoyana	none.	uneven, oblique.	convex.	bent.	perfect.	from upper.
	Penoa limborgii	one on fore wing.	convex.	convex.	bent.	perfect.	from upper.
	Stictoplœa harrisii	two on fore wing.	convex.	convex.	bent.	perfect.	from upper.
	Group E.						
Sumatra.	Salpinx vestigiata	one on fore wing and patch on hind wing.	convex.	very convex.	concave.	concave, perfect.	none.
	Stictoplœa picina	two on fore wing.	convex.	convex.	bent.	perfect.	from upper.

Subfamily EUPLŒINÆ.

Danai festivi, Linnæus.

Festivi, Fabricius, Ent. Syst. iii. p. 39 (1793); Turton, Syst. Ent. ii. p. 54 (1806).

Limnades, Hübner, Verz. bek. Schmett. p. 14 (1816).

Danainæ[1] of modern authors.

Euplœinæ, Moore, Lep. of Ceylon, p. 1 (1880).

Fore wing with the submedian vein double at its origin. Most genera also with an incipient or lengthened discoidal veinlet emitted within the cell of fore wing. Abdomen furnished with odoriferous anal tufts of hair. Larva smooth, with fleshy processes.

Group ——?

Danaoid Heliconidæ, Bates, Trans. Linn. Soc. xxiii. pp. 496 517 (1862).

This group of Butterflies I consider to be quite distinct from the next. They differ in the form of outline in the wings, and, though having similar venation in the fore wing, the basally forked submedian, and in most of the genera the more or less lengthened discoidal (or recurrent) veinlet (in some genera two such veinlets) emitted within the cell, and, although the hind wing possesses a more or less defined small precostal (or basal) cell, this latter wing has a much larger discoidal cell, and also has (in *Lycorea halia*) a single discoidal veinlet emitted within the cell; whilst in others (*Sais rosalis* and *Mechanitis lysimnia*) the costal and subcostal veins are amalgamated, and consequently the precostal cell is absent, and the discoidal veinlet within the cell is present; but in the former species (*Sais*) there are two such veinlets in both wings of the female, and two in fore wing of female *M. lysimnia*. In *Ithomia* (sp. ?) the costal and subcostal veins of the hind wing run close together from their base along edge of the margin, both wings also having a short discoidal veinlet emitted within the cell. In this group, the males, besides possessing odoriferous tufts of hair at the extremity of the abdomen, have in some genera an odoriferous tuft of hair also on the subcostal vein along the upper side of the hind wing[2].

[1] Linnæus used the name *Danaus* in both sections of his Papilio Danai (*D. candidi* and *D. festivi*). In 1777 Esper (Die Schmett. i. p. 53) used it as a generic name for species of Pierinæ, representing Linnæus's *D. candidi*; and in 1784 Esper (Natur. des Linneischen Systems, p. 214) again cites it for species of Pierinæ. Fabricius (Ent. Syst. iii. p. 39, 1793) and Weber (Nomen. Ent. pp. 99, 106, 1795) separated the modern Danainæ under the name of *Festivi*, and restricted the term *Danai* to the *D. candidi* of Linnæus. In 1798 Cuvier (Tableau Elément. d'Hist. Nat. p. 590) cites species of Pierinæ only under *Danai*. Panzer, in 1801 (Faun. Ins. Germ. Hefte 73–84, p. 11), also adopts *Danaus*, generically, for species of Pierinæ; and, in 1806, Turton (Gen. Syst. of Entom. p. 64) also restricts the *Danai* to species of Pierinæ. The name "*Danaus*," as applied by Latreille in 1805–09, cannot, therefore, be retained in this group of Butterflies.

[2] See Fritz Muller's "Notes on Brazilian Entomology" (Trans. Ent. Soc. 1878, p. 211), and translation by R. Meldola of Dr. Fritz Müller's paper on *Ituna* and *Thyridia*, in Trans. Ent. Soc. 1879, 'Proceedings,' p. xx.

I have not attempted the study of this group of American Butterflies further than what was necessary for the purpose of pointing out its distinction from the other groups.

Group Limnaina.

Males, in most genera, possessed with one or more glandular sacs or scent-producing organs on the hind wing. Hind wing also mostly with a more or less defined precostal cell. Abdomen furnished with odoriferous anal tufts of hair.

Larva smooth, with two or more pairs of subdorsal, long, slender, fleshy processes.

Key to the Genera of Limnaina.

	Sexual mark on hind wing	Upper discocellular vein of fore wing	Lower discocellular vein of fore wing	Discoidal veinlet of fore wing	Typical genera and species.
A.	*No "sexual mark" or scent-producing organ on hind wing.*				
	none.	bent.	perfect.	from upper discocellular, very short.	Hestia lynceus.
	none.	ditto.	ditto.	ditto.	Nectaria idea.
	none.	ditto.	ditto.	ditto, short.	Gamana daos.
	none.	ditto.	ditto.	ditto.	Ideopsis gaura.
	none.	ditto.	imperfect at upper end.	ditto.	Radena similis.
	none.	concave.	perfect, concave	none.	Cadytis vashti.
B.	*One "sexual mark" or scent-producing organ on hind wing.*				
a.	On submedian vein.	concave.	imperfect at upper end.	none.	Amauris niavius.
	ditto.	ditto.	ditto.	ditto.	Nebroda echeria.
	ditto.	ditto.	ditto.	ditto.	Berethis phædon.
	ditto.	ditto.	ditto.	ditto.	Lintorata menadensis.
b.	Between median and submedian veins.	straight.	bent, imperfect near upper end.	from lower discocellular, short.	Tirumala limniace.
	ditto.	ditto.	straight, imperfect at upper end	from middle of discocellulars, short.	Nasuma ismare.
	ditto.	ditto.	ditto.	ditto.	Melinda formosa.
	ditto.	bent.	imperfect.	from upper dis cellular.	Anosia plexippus.
	ditto.	straight.	straight, imperfect.	from middle of discocellulars, short.	Tasitia berenice.
	ditto.	ditto.	ditto.	ditto.	Limnas chrysippus.
	ditto.	bent.	ditto.	from upper discocellular, short.	Salatura genutia.

KEY TO THE GENERA OF LIMNAINA (*continued*).

C.	*Two "sexual marks" or scent-producing organs on hind wing.*				
	Sexual mark on hind wing	Upper discocellular vein of fore wing	Lower discocellular vein of fore wing	Discoidal veinlet of fore wing	Typical genera and species.
a.	On median and submedian vein.	straight.	bent, imperfect near upper end.	from lower discocellular, short.	Ravadeba cleona.
	ditto.	ditto.	ditto.	ditto.	Bahora philomela.
	ditto.	ditto.	ditto.	ditto.	Phirdana pumila.
	ditto.	ditto.	ditto.	ditto.	Asthipa vitrina.
	ditto.	ditto.	ditto.	ditto.	Parantica aglea.
	ditto.	ditto.	ditto.	ditto.	Mangalisa albata.
b.	On submedian and internal veins.	ditto.	ditto.	ditto.	Caduga tytia.
	ditto.	ditto.	ditto.	ditto.	Chittira fumata.

A. *No "sexual mark" or scent-producing organ on hind wing.*

Genus NECTARIA.

Nectaria, Dalmann, in Billb. Enum. Ins. p. 76 (1820); Moore, Lep. of Ceylon, i. p. 2 (1880).

Idea, Fabricius, Illiger's Mag. vi. p. 283 (1807); Godart, Enc. Méth. ix. p. 194 (1819).

Danaus (part.), Latreille, Gen. Crust. et Ins. iv. p. 201 (1809); Consid. Gén. C. et Ins. pp. 352, 440 (1810).

Hestia (part.), Hübner, Verz. bek. Schmett. p. 15 (1816).

Hestia, Doubleday & Hewits. Gen. D. Lep. p. 94; Distant, Rhop. Malayana, p. 5.

Wings semidiaphanous, large: fore wing broad, lengthened, triangular; costa slightly arched, apex quite convex, exterior margin oblique, waved, posterior margin short, slightly concave in middle; costal vein extending to half its length; first subcostal branch emitted at about one fourth before end of the cell and anastomosed to costal near its end, second branch from near end of the cell, third and fourth at equal distances beyond, the fourth terminating above and the fifth below the apex; cell long; upper discocellular inwardly oblique, bent near subcostal and in the middle, the lower angle produced to a point within the cell, lower discocellular outwardly convex, first radial from upper angle and second from below lower angle of upper discocellular; three median branches wide apart; submedian very recurved, basal veinlet short, slender. Hind wing lengthened, oval; costal margin slightly waved, anal angle convex; cell broad; costal vein short, precostal forked; subcostal branches wide apart, first very short; discocellulars bent outward at their middle, the radial emitted from the angle; median branches wide apart; submedian and internal vein slightly recurved. Body

long, slender; palpi porrect, pilose above and beneath, tip pointed, very minute; legs long, slender; antennæ slender.

Larva (*N. malabarica*) with four pairs of long fle shy aments.

Type *N. idea*.

1. Nectaria idea.

Papilio idea, Clerck, Icones, ii. pl. 38. f. 1, ♂ (1764); Joh. Amœn. Acad. vi. p. 405; Linn. Mus. Ulr. p. 238; id. Syst. Nat. i. 2, p. 758 (1767); Cram. Pap. Exot. iii. pl. 193. f. A, B, ♀; Donov. Ins. Ind. pl. 24.

Idea idea, Fabr. Syst. Glossat., Illiger's Mag. vi. p. 120 (1808).

Danaus idea, Latr. Gen. Crust. et Ins. iv. p. 201 (1809); Consid. Gén. Crust. et Ins. p. 440 (1810).

Limnas (*Thalassica*) *idea*, Hübner, Samml. exot. Schmett. i. pl. 18 (1806).

Hestia idea, Hübn. Verz. bek. Schmitt. p. 15; Butler, Trans. Ent. Soc. 1867, p. 467; Aurivillius, Kongl. Vet.-Akad. Handl. 1882, p. 52.

Hab. Ceram, Amboina (*Wallace*).

2. Nectaria aza.

Idea aza, Boisduval, Voy. Astr., Lép. p. 106 (1832).

Papilio idea, Cramer, Pap. Exot. iv. pl. 362. f. D, ♀.

Hestia aza, Butler, Trans. Ent. Soc. 1867, p. 468.

Hab. Bouru; Sula Is. (*Wallace*).

3. Nectaria agelia.

Idea agelia, Godart, Enc. Méth. ix. p. 195 (1819); Lucas, Lép. Exot. pl. 48. ♀.

Hab. Batchian (*Wallace*). In coll. H. G. Smith.

4. Nectaria d'urvillei.

Idea d'urvillei, Boisduval, Voy. Astr., Lép. p. 107, pl. 3. f. 4 (1832).

Hestia d'urvillei, Doubleday & Hewits. Gen. D. Lep. pl. 13. f. 3, ♂; Butler, Trans. Ent. Soc. 1867, p. 469.

Hab. Aru; New Guinea.

The New-Guinea form has darker wings, the veins and all the markings being more prominent.

5. Nectaria blanchardii.

Idea blanchardii, Marchal, Rev. Zool. 1845, p. 168, ♂.

Hestia blanchardii, Butler, Trans. Ent. Soc. 1867, p. 468.

Idea tondana, Vollenhoven, Tijd. voor Ent. iii. p. 41, pl. 4 (1860).

Hab. Borneo (*Marchal*); Celebes (*Brit. Mus.*).

6. Nectaria leuconoe.

Idea leuconoë, Erichson, Nova Acta Acad. Nat.-Cur. xvi. p. 283 (1834).

Hestia leuconoë, Doubleday & Hewitson, Gen. D. Lep. p. 95 pl. 13. f. 2 (1847); Butler, Trans. Ent. Soc. 1867, p. 469.

Hab. Philippines (Mindanao); Borneo.

7. Nectaria godmani.

Idæa godmani, Oberthür, Trans. Ent. Soc. Lond. 1879, p. 230.

Hab. Sangir Island.

8. Nectaria clara.

Hestia clara, Butler, Trans. Ent. Soc. 1867, p. 469.

Hab. Tamsui, North Formosa (*Hobson*); ? Java; Billiton.

Sabalassa, n. g.

Fore wing in both sexes much produced and rounded at the apex; exterior margin very oblique, and in the male very abruptly concave in the middle, thus giving a different shape to this wing, as compared with *Nectaria* (*Idea*), though approaching that of *Hestia*. In pattern of markings it similates to *Nectaria*.

Sabalassa electra.

Hestia electra, Semper, Verh. Ver. Nat. Unt. Hamburg, iii. p. 106 (1878).

Male and female. Yellowish: fore wing much produced and rounded at the apex; veins and cell-streaks black; a black, irregular, angulated patch in middle of the cell and a broad lunular patch at its end; a narrow, waved-bordered, marginal band traversed by a row of yellowish spots; a discal transverse zigzag band, a small spot below the cell between middle and lower medians, and a pyriform spot between median and submedian. Hind wing with black veins and cell-streaks; a waved-bordered marginal band traversed by yellowish spots, a discal series of sagittate marks, the lower marks being slightly confluent with the veins at their upper angles.

Expanse, ♂ $5\frac{1}{4}$, ♀ $6\frac{1}{2}$.

Hab. Philippines (East Mindanao). In coll. G. Semper.

Genus Hestia.

Hestia, Hübner, Verz. bek. Schmett. p. 15 (1816).

Wings semidiaphanous: fore wing long, narrow, somewhat fusiform; costa much arched; cell narrow; first subcostal vein emitted at one fifth before end of the cell, and joined to costal near its end by a short cross branch; upper discocellular inwardly oblique, deeply concave in the middle, lower curved outward; upper radial from near subcostal, lower radial from below the angle in the middle of discocellulars; submedian with a short, slender, lower basal veinlet. Hind wing fusiform, narrow; cell narrow; veins mostly straight. Antennæ slender; apical joint of palpi prominent.

Type *H. lynceus*.

1. Hestia lynceus.

Papilio lynceus, Drury, Ill. Exot. Ent. ii. pl. 7. f. 1 (1773).

Idea lyncea, Godt. Enc. Méth. ix. p. 195.
Hestia lynceus, Hübner, Verz. bek. Schmett. p. 15 (1816).
Hab. Borneo. In colls. British Museum and F. Moore.

2. Hestia stolli.

Papilio idea, Stoll, Cramer's Pap. Exot. v. pl. 42. f. 1.

Intermediate between *H. reinwardtii* and *H. lynceus*. Wings comparatively shorter and narrower, the tint of ground-colour whitish, the veins broader black-lined than in *H. lynceus*; the discal spots and marginal markings are also broader than in *H. lynceus*; but neither the veins nor markings are so large and prominent as in *H. reinwardtii*.

Expanse, ♂ 6, ♀ $6\frac{1}{4}$ inches.
Hab. Java. In colls. British Museum and F. Moore.

3. Hestia reinwardti.

Hestia lynceus, Distant, Rhop. Malayana, pl. 1. f. 2, ♂ (1882).

Male and female. Differs from the Bornean *H. lynceus* in both wings being a quarter of an inch broader, as measured across the middle; the fore wing is also shorter; the hind wing much shorter, being considerably less produced externally, and the abdominal margin longer; the wings are very conspicuously blacker in tint; the veins in both wings are broader, and with the spots are of a deeper black and stand out more prominently, the spots being similar but larger.

Expanse, ♂, ♀ $6\frac{1}{4}$ inches.
Hab. Sumatra; Nias; Malacca. In colls. British Museum, H. G. Smith, and W. L. Distant.

4. Hestia logani.

Hestia lynceus (part.), Distant, Rhop. Malayana, p. 6 (1882).

Differs from *H. reinwardti* in both sexes having the wings comparatively narrower, the hind wing being more produced exteriorly; the ground-colour is also much paler and of a slight brownish fuliginous tint; all the veins are slenderly black-lined, the spots and border-markings being about one half less in size.

Expanse, ♂ $6\frac{1}{4}$, ♀ $6\frac{1}{2}$ inches.
Hab. Malacca; Penang. In coll. British Museum.

5. Hestia donovani, n. sp.

Compared with typical Bornean *H. lynceus*, this is paler in colour, the black veins narrower; markings similar, but all of half the size: fore wing with the cell-spot more quadrate, the discocellular angular spot very broad hindward, the discal series more rounded, the basal spot below the cell cordate, the marginal marks short. Hind wing with the cell and discal spot small and round, the basal spot below the cell crossed by the black streak.

Expanse, ♀ $4\frac{1}{2}$ inches.
Hab. Singapore. In coll. H. G. Smith.

6. Hestia druryi, n. sp.

Hestia idea, var., Doubleday & Hewitson, D. Lep. pl. 13. f. 1, ♂.

Nearest to *H. loganii*. Wings smaller; the veins more slenderly and less distinctly black-lined; all the spots much smaller; fore wing with the cell-spot triangular, the discocellular streak narrow, the discal row of spots more conical; the basal spot below the cell is broken into two smaller spots by the separating pale longitudinal streak; the marginal series of marks are comparatively longer and of less breadth. Hind wing with the cell-spot half the size, the discal series more conical; the basal spot below the cell is single and has no contiguous small spot below the slender streak, the marginal marks comparatively narrower.

Expanse $5\frac{1}{2}$ inches.

Hab. Sumatra. In colls. British Museum and F. Moore.

7. Hestia jasonia.

Hestia jasonia, Westwood, Cabinet of Oriental Entom. p. 87, pl. 43. f. 1 (1848); Butler, Trans. Ent. Soc. 1867, p. 470.

Nectaria jasonia, Moore, Lep. of Ceylon, p. 3, pl. 1. f. 1 (1880); Marshall & de Nicéville, Butt. of India &c. p. 27, pl. 3. f. 1, ♂.

Hab. Ceylon.

The specimens of *H. jasonia* are very variable in the tint of the ground-colour of their wings, some being almost greyish white, others dusky white, whilst some are fuliginous brown. The form of wings and pattern of markings in these differently coloured specimens do not vary to any appreciable extent. These differences in coloration may be the result of seasonal broods, of which probably there are two or more, as, according to Capt. Hutchison, this insect may be found on the wing all the year in the Western, Central, and Southern Provinces of the island.

8. Hestia agamarschana.

Hestia agamarschana, Felder, Reise der Novara, Lep. ii. p. 351, pl. 43. f. 7 (1867); Butler, Trans. Ent. Soc. 1867, p. 470; Moore, P. Z. S. 1877, p. 582; Marshall & de Nicéville, Butt. of India &c. p. 27 (1882).

Hab. Andaman Isles.

9. Hestia cadelli.

Hester cadellii, W. Mason, Journ. Asiatic Soc. Bengal, 1880, p. 225, pl. 13. f. 1, ♂, 1881, p. 244, ♀; Marshall & de Nicéville, Butt. of India &c. p. 28, pl. 4. f. 2, ♂ (1882).

Hab. Andaman Isles.

10. Hestia hadeni.

Hestia hadeni, W. Mason, Journ. Asiatic Soc. Bengal, 1880, p. 242, pl. 13. f. 2, ♀; Marshall & de Nicéville, Butt. of India &c. p. 29, pl. 4. f. 3, ♀.

Hab. Bassein, British Burmah.

11. Hestia linteata.

Hestia linteata, Butler, Trans. Linn. Soc. 2 ser. i. p. 536, pl. 69. f. 6 (1876–79); Distant, Rhopal. Malayana, p. 7, pl. 2. f. 1 (1882).

Hab. Malay Peninsula (Province Wellesley, Malacca).

12. Hestia malabarica.

Hestia malabarica, Moore, Ann. Nat. Hist. ser. 4, vol. xx. p. 46 (1877).

Hestia malabaricus et *lynceus*?, Marshall & de Nicéville, Butt. of India &c. pp. 25, 26 (1882).

Hab. S.W. India (Western Ghauts, Nilgiris, Travancore). In colls. F. Moore and British Museum.

The larva and pupa of *H. malabarica* were figured in the Catal. Lep. Mus. E.I. Co. pl. iv. f. 11, 11*a*, in error for those of *G. daos*. The figures there engraved were stated by Prof. Westwood to represent the transformations of *G. daos*; the drawings (now in the Library of the Entomological Society of London) were received by him from Capt. Hamilton; and the species in question was stated to be from the Tenasserim coast.

In a letter which I subsequently received from Mrs. Hamilton, this lady informed me that the drawings of the above-mentioned larva and pupa were made from specimens taken on the Cotiaddy Pass, in the Western Ghauts of Southern India, not in Tenasserim as stated by Prof. Westwood. This identity is also confirmed by other drawings of the metamorphoses of the same insect, now in my possession.

13. Hestia belia.

Hestia belia, Westwood, Cabinet of Oriental Entom. p. 75, pl. 37. f. 2 (1848); Moore, Catal. Lep. Mus. E.I. Co. i. p. 135, pl. 4. f. 12; Butler, Trans. Ent. Soc. 1867, p. 470.

Hab. Java.

14. Hestia hypermnestra.

Hestia hypermnestra, Westwood, Cabinet of Oriental Entom. p. 75, pl. 37. f. 1 (1848).

Idea hypermnestra (*jasonia*, var.), Vollenhoven, Tijds. voor Entom. iii. p. 43, pl. 3 (1860), ♂.

Hab. Borneo.

Gamana, n. g.

Wings semidiaphanous: fore wing long, narrow, somewhat fusiform; costa arched at base and apex; first subcostal vein emitted as a short branch obliquely up to costal at about one third before end of the cell, and terminating beyond its end; upper discocellular angled inward near its lower end and producing a short discoidal spur within the cell from the angle, lower discocellular outwardly oblique; first radial emitted from below subcostal at some distance beyond end of the cell, second from near angle of upper discocellular. Hind wing short, broad, oval, very convex externally; cell short;

costal vein long, extending to posterior angle of fore wing; first and second subcostal veins long. Antennæ short, slender, with a well-formed rounded club. Apical joint of palpi prominent.

1. Gamana daos.

Idea daos, Boisduval, Spec. Gén., Lép. i. pl. 24. f. 3 (1836), ♂.
Hestia eudora, Gray, Lep. Ins. Nepal, p. 10, pl. 9. f. 3 (1846), ♂.
Idea diardi, Voll. Tijd. voor Ent. iii. p. 44, pl. 2. f. 4 (1860), ♂.
Ideopsis daos, Moore, Catal. Lep. Mus. E.I. Co. i. p. 134 (1857); Distant, Rhopal. Malayana, p. 8, pl. i. f. 3, 4, ♂ ♀ (1882).

Hab. Malay peninsula (Province Wellesley, Malacca); Penang; Singapore; Sumatra; Borneo.

2. Gamana costalis, n. sp.

Male. Smaller than Malayan specimens; veins of both wings conspicuously narrower, not being black-bordered at their base. On the fore wing the costal border is blacker, being completely covered basally; the discocellular spot and the submarginal and marginal spots are of half the size of those in Malayan specimens: hind wing with the discocellular, submarginal, and marginal spots also about half the size.

Expanse, ♂ $3\frac{1}{4}$ inches.

Hab. Nias Island, W. coast of Sumatra. In coll. British Museum.

A Sumatran female in the British Museum, and another in my collection, which may possibly belong to this species, are both smaller and darker, and have the veins more broadly black-bordered than Malayan females of *G. daos*.

Genus Ideopsis.

Ideopsis, Horsf. & Moore, Catal. Lep. E.I. Co. i. p. 133 (1857).
Danais, sect. 4, Doubleday, Gen. D. Lep. p. 90.

Wings semidiaphanous: fore wing narrow, triangular; costa in male slightly arched; first subcostal branch emitted at about one third before end of the cell and anastomosed to costal, second at some distance before end of the cell; upper discocellular bent inward near its lower end and producing a short discoidal spur within the cell from the angle, lower discocellular outwardly oblique; first radial emitted from below the subcostal at some distance beyond end of the cell, second radial from near angle of the upper discocellular. Hind wing bluntly oval; costal margin long, nearly straight; abdominal margin long; venation similar to *Gamana*. Antennæ with a short, broad, flat, spatular club. Apical joint of palpi pointed.

Type *I. gaura*.

1. Ideopsis gaura.

Idea gaura, Horsfield, Catal. Lep. E.I. Co. (1829), pl. 6. f. 1; Boisd. Spec. Gén. Lép., i. pl. 11. f. 11 (1836).

Hab. Java.

2. Ideopsis glaphyra, n. sp.

Ideopsis glaphyra, Semper, MS.

Intermediate between *I. gaura* and *I. anapis*.

Male. Fore wing differs from *I. anapis* in the three pale streaks between subcostals and upper median being interrupted with black, the excavated streak between upper and middle median extending to the base of the interspace, in the same manner as the two lower pale interspaces. Hind wing with similar spots, the black discal spots being joined to the marginal band by short streaks; a black spot at end of the cell.

Female. Fore wing with broader and larger entire upper pale streaks, extending to base of the interspaces. Hind wing with the discal spots as in male, the cell-spot being obsolete.

Expanse, ♂ 3, ♀ $3\frac{3}{8}$ inches.

Hab. Philippines (Mindanao). In coll. G. Semper.

3. Ideopsis anapis.

Danais anapis, Felder, Wien. ent. Monats. v. p. 300 (1861).

Ideopsis anapis, Felder, Reise der Novara, Lep. ii. p. 351, pl. 43. f. 6 (1867).

Hab. Philippines (Luzon).

4. Ideopsis hewitsoni.

Ideopsis hewitsonii, Kirsch, Mitth. zool. Mus. Dresden, i. p. 114, pl. 6. f. 1 (1877), ♂.

Hab. New Guinea (Mysore Island).

5. Ideopsis vitrea.

Danais vitrea, Blanchard, Voy. Pôle Sud, p. 385, pl. 2. f. 2 (1853), ♀.

Danais œnopia, Felder, Wien. ent. Monats. iii. p. 182, pl. 4. f. 2 (1859).

Hab. Celebes.

6. Ideopsis chloris.

Danais chloris, Felder, Wien. ent. Monats. iv. p. 231 (1860); id. Reise der Novara, Lep. ii. p. 351, pl. 42. f. 3, ♂ (1867).

Danais salvini, Butler, P. Z. S. 1866, p. 172, f. 2, ♀.

Hab. Moluccas; Gilolo, Batchian; Celebes.

7. Ideopsis inuncta.

Danais inuncta, Butler, P. Z. S. 1865, p. 481, ♀, 1866, pl. 4. f. 7, ♀.

Ideopsis phæstis, Felder, Reise der Novara, Lep. ii. p. 351, pl. 43 f. 5 (1867), ♀.

Hab. Waigiou.

Genus Radena.

Radena, Moore, Lep. of Ceylon, i. p. 3 (1880); Distant, Rhopal. Malayana, p. 9 (1882).

Danaus (part.), Latreille, Gen. Crust. et Ins. iv. p. 201 (1809).

Hestia (part.), Hübner, Verz. bek. Schmett. p. 15 (1816).

Danais (*Radena*), Marshall & de Nicéville, Butt. of India, Burmah, &c. p. 32 (1882).

Fore wing moderately long, triangular; first subcostal branch emitted at about one third before end of the cell and anastomosed to the costal in the middle, second branch emitted immediately before end of the cell, third and fourth at equal distances beyond; discocellulars concave, upper slightly bent before the middle, producing a very short discoidal spur within the cell from the angle, lower discocellular slender at its upper end; upper radial from end of cell, in a line with subcostal, lower from the middle; medians at equal distances apart; submedian with a short, slender, lower basal veinlet. Hind wing broad, somewhat triangular; costal margin long, nearly straight, abdominal margin long; costal vein very convex from the base and then extending straight along edge of the margin; cell long, broad; subcostals and median branches very wide apart. No scent-pouch in male. Antennæ longer than in allied genera, and with a more gradually thickened and blunt club. Apical joint of palpi long.

Larva (*R. juventa*) with two pairs of fleshy filaments.

Type *R. similis*.

1. Radena similis.

Papilio similis, Linn. Mus. Ulr. p. 299; id. Syst. Nat. x. p. 479 (1758); Clerck, Icones, i. pl. 16. f. 3 (1759); Fabr. Ent. Syst. iii. p. 58.

Danais similis, Butler, Catal. Lep. Fabr. Brit. Mus. p. 6.

Danais similis, Aurivillius, Kongl. Vet.-Akad. Handl. 1882, p. 100.

Papilio aventina, Cramer, Pap. Exot. i. pl. 59. f. F (1779).

Danais aventina, Godt. Enc. Méth. ix. p. 191.

Danais chinensis, Felder, Verh. zool.-bot. Gesellsch. xii. p. 488 (1862).

Hab. Hongkong; Formosa.

2. Radena persimilis. (Plate XXXI. fig. 4.)

Danais persimilis, Moore, Proc. Zool. Soc. 1879, p. 136.

Hab. Siam (Bankok). In coll. F. Moore.

3. Radena vulgaris.

Danais vulgaris, Butler, Entom. Monthly Mag. xi. p. 164 (1874) Moore, Proc. Zool. Soc. 1878, p. 822.

Radena vulgaris, Distant, Rhopalocera Malayana, p. 10, pl. 1. f. 8 (1882).

Danais (*Radena*) *vulgaris*, Marshall & de Nicéville, Butt. of India &c. p. 32, fig. ♂ ♀ (1882).

Euplœa similis, Zinken-Sommer, Nova Acta Acad. Cur. 1831, p. 175.

Hab. British Burmah (Tenasserim); Malay peninsula (Prov. Wellesley, Malacca); Penang; Sumatra; Java (*Horsfield*); Billiton; Borneo (Sarawak, Banjermassen).

4. Radena nicobarica.

Danais similis, var. *nicobarica*, Wood-Mason, Journ. Asiat. Soc. Bengal, 1881, p. 225, 1882, p. 14.

Danais (*Radena*) *nicobarica*, Marshall & de Nicéville, Butt. of India &c. p. 34, fig. ♀.

Hab. Great Nicobars.

5. Radena exprompta.

Danais exprompta, Butler, Entom. Monthly Mag. xi. p. 164 (1874).

Radena exprompta, Moore, Lep. of Ceylon, i. p. 4, pl. 2. f. 1 (1880).

Danais (*Radena*) *exprompta*, Marshall & de Nicéville, Butt. of India &c. p. 33 (1882).

Hab. Ceylon.

6. Radena juventa. (Plate XXIX. fig. 1, ♂.)

Papilio juventa, Cramer, Pap. Exot. ii. pl. 188. f. B (1780).

Danais juventa, Godt. Enc. Méth. ix. p. 193; Moore, Catal. Lep. Mus. E.I. Co. i. p. 122, pl. 4. f. 4, 4*a*.

Hab. Java, Lombock, Billiton.

7. Radena manillana, n. sp.

Male. From typical specimens of *R. juventa* this differs on the fore wing in the discoidal streaks being nearer together, and in some touching at their lower end; the medial discal spots are more oval in shape. On the hind wing the discal spots are also comparatively narrower and longer, and the two marginal series of spots are disposed in a more curved series.

Female. With more widely separated markings, the medial discal spots conspicuously oval, and the submarginal row composed of larger spots: the hind wing has much narrower streaks and comparatively larger marginal spots.

Expanse 3 inches.

Hab. Manilla, South Luzon. In coll. F. Moore and G. Semper.

8. Radena luzonica, n. sp.

Intermediate between *R. juventa* and *R. ishma*. Fore wing with all the markings smaller and more widely separated than in *R. ishma*, the second and third upper discal and the two opposite submarginal spots separated as in *R. juventa*, the two large discal smaller

than in either of those species, the two bands between the median and submedian well separated in the female; the submarginal spots are comparatively larger than in *R. juventa*. Hind wing with widely separated basal markings as in *R. ishma*, the two marginal rows of spots less distinct than in *R. juventa*.

Expanse, ♂ $3\frac{1}{4}$, ♀ 3 inches.

Hab. North Luzon. In coll. F. Moore, G. Semper, and British Museum.

9. Radena ishma.

Danais ishma, Butler, Cist. Entom. i. p. 2 (1869); id. Lep. Exot. i. p. 53, pl. 20. f. 3 (1871), ♂.

Hab. Gilolo, Celebes.

10. Radena meganira.

Danais meganira, Godt. Enc. Méth. ix. p. 192 (1819); Boisd. Faune de l'Océanie, ix. p. 104; Blanch. Voy. Pôle Sud, p. 387, pl. 2. f. 4, ♀,

? *Papilio claviger*, Gmelin, Syst. Nat. i. 5. p. 2289 (1788–93); Zschach, Mus. Lesk. Ent. p. 89 (1788).

Hab. Ceram.

11. Radena curtisi, n. sp.

Allied to *R. sobrinoides*. Fore wing with a very slender, long, basal, discoidal streak; a smaller irregular constricted spot at the end, the two upper discal series of spots much smaller, the two streaks below the cell narrower. Hind wing with similar basal interspaces; the discoidal more entire and its bifid streak defined; the two marginal rows of spots much smaller.

Expanse, ♂ $2\frac{3}{10}$, ♀ 3 inches.

Hab. Batchian (*Curtis*). In coll. British Museum.

12. Radena sobrina.

Danais sobrina, Boisduval, Faune de l'Océanie, ix. p. 103, pl. 4. f. 3 (1832).

Hab. New Guinea, Aru.

13. Radena purpurata.

Danais purpurata, Butler, P. Z. S. 1866, p. 52. f. 2; Kirsch, Mitth. Zool. Mus. Dresden, i. p. 114 (1877).

Hab. New Guinea.

14. Radena turneri.

Danais turneri, Butler, Ann. Nat. Hist. ser. 5, vol. i. p. 480 (1878).

Hab. New Guinea, Thursday Island.

15. Radena sobrinoides.

Danais sobrinoides, Butler, Ann. Nat. Hist. ser. 5, vol. x. p. 37 (1882).

Hab. New Britain; New Ireland.

Cadytis, n. g.

Fore wing more triangular than in *Amauris*, the costal margin straighter; cell narrower; discocellulars less obliquely convex, lower discocellular slender at upper end; no discoidal spur. Hind wing slightly produced at the apex, exterior margin somewhat straight anteriorly and convex posteriorly, abdominal margin very long. *Male*: hind wing with the area on both sides of the submedian vein numerously covered with fine long hairs.

Cadytis vashti.

Danais vashti, Butler, Cist. Ent. i. p. 1 (1869).
Amauris vashti, Butler, Lep. Exot. i. pl. 21. f. 1 (1871).
Hab. Old Calabar.

B. *One "sexual mark" or scent-producing organ on hind wing.*

a. Sexual mark on submedian vein.

Genus Amauris.

Amauris, Hübner, Verz. bek. Schmett. p. 14 (1816); Reakirt, Proc. Acad. Nat. Sci. Phil. 1866, p. 240.
Danais (sect. i.), Doubleday, Gen. D. Lep. p. 89; Butler, P. Z. S. 1866, p. 43.

Fore wing long, narrow, triangular, apex convex, exterior margin very oblique, posterior margin straight; subcostal vein straight, first branch emitted at one fourth before, and second branch close to, end of the cell, second extending to near apex; third branch trifid; cell long, narrow; discocellulars obliquely concave, upper longest, lower slender at upper end; upper radial emitted from end of the cell; submedian vein undulated, emitting a short slender veinlet from below near the base. Hind wing broadly conical; costal margin nearly straight, exterior margin convex, abdominal margin long; costal vein much curved at base and extending along edge of the margin; first subcostal emitted at half length of the cell, much curved, second branch quite straight; cell broad; discocellulars very oblique. Male with a lengthened oval glandular patch or scent-producing organ on the submedian vein near its end, where the vein is also slightly swollen; abdomen with a pair of large flat conchiform anal claspers, from above which are exserted a pair of large pencils of hair. Antennæ long with moderately well-formed club. Palpi ascending to vertex, flattened; first and second joints pilose beneath; third joint rather long, projected forward in front of the head, squamose. Legs long, slender.

Type *A. niavius*.

1. Amauris niavius.

Papilio niavius, Linn. Mus. Ulr. p. 253 (1764); id. Syst. Nat. i. 2, p. 766 (1767); Clerck, Icon. ii. pl. 32. f. 2 (1764); Cramer,

Pap. Exot. ii. pl. 2. f. F, G; Beauvois, Ins. Afr. et Am., Lép. p. 238, pl. 6. f. 1*a*, 1*b*.

Amauris niavius, Hübner, Verz. bek. Schmett. p. 15; Aurivillius, Kongl. Vet.-Akad. Handl. 1882, p. 63.

Danais niavius, Godart, Enc. Méth. ix. p. 182; Butler, Catal. Lep. Fabr. B. M. p. 4.

Hab. Sierra Leone; Ashanti; Angola.

2. Amauris dominicana.

Danais dominicanus, Trimen, Trans. Ent. Soc. 1879, p. 323.

Danais niavius, var., Trimen, Trans. Linn. Soc. xxvi. pp. 511, 521, pl. 42. f. 6, ♂.

Hab. Natal.

3. Amauris damocles.

Papilio damocles, Beauvois, Ins. Afr. et Am., Lép. p. 239, pl. 6. f. 3*a*, *b* (1805).

Danais damocles, Godart, Enc. Méth. ix. p. 182.

Hab. Sierra Leone; Angola.

4. Amauris hecate.

Danais hecate, Butler, P. Z. S. 1866, p. 44.

Euplœa niavius, Doubleday & Hewits. Gen. D. Lep. pl. 11. f. 3.

Hab. Ashanti.

5. Amauris inferna.

Amauris inferna, Butler, P. Z. S. 1871, p. 79; id. Lep. Exot. p. 86, pl. 33. f. 2 (1872).

Hab. Inbonzo.

6. Amauris tartarea.

Amauris tartarea, Mabille, Bull. Soc. Zool. France, 1876, p. 199.

Hab. Congo.

7. Amauris hyalites.

Amauris hyalites, Butler, Cistula Ent. i. p. 209 (1874).

Hab. Ambriz.

8. Amauris egialea.

Papilio egialea, Cramer, Pap. Exot. ii. pl. 192. f. D (1779).

Amauris egialea, Hübner, Verz. bek. Schmett. p. 14.

Danais egialea, Butler, Catal. Fabr. Lep. B. M. p. 4; Trimen, Trans. Linn. Soc. xxvi. p. 506.

Papilio damocles, Fabricius, Spec. Ins. p. 102 (1781); id. Ent. Syst. iii. 1, p. 41 (1793).

Hab. Sierra Leone; Cape Palmas; Ashantee.

9. Amauris gabunica.

Amauris damocles, var. *gabunica*, Aurivillius, Ent. Tidskr. ii. p. 39 (1881).

Hab. Gaboon.

10. Amauris nossima.

Danais nossima, Ward, Ent. Monthly Mag. vi. p. 225 (1870); Afr. Lep. p. 5, pl. 5. f. 1 (1873).

Hab. Madagascar.

11. Amauris ochlea.

Danais ochlea, Boisduval, Voy. Deleg. ii. p. 589 (1847); Trimen, Rhop. Afr. Austr. p. 85, pl. 2. f. 6.

Amauris ochlea, Reakirt, Proc. Acad. Sci. Phil. 1866, p. 241.

Hab. Natal.

Nebroda, n. g.

Fore wing comparatively shorter and more regularly triangular than in *Amauris*; costa straighter, first subcostal branch emitted nearer end of the cell; discocellulars shorter; cell narrower at end. Hind wing shorter, the apex and exterior margin more convex; cell less triangular; first and second subcostal branches emitted much further apart. Male with a small, prominent, short oval glandular patch or scent-producing organ near end of submedian vein. Abdomen shorter; anal conchiform valves prominent. Antennæ stouter.

"Larva with five pairs of rather long fleshy filaments" (*Trimen*).

Type *N. echeria*.

1. Nebroda echeria.

Papilio echeria, Stoll, Suppl. Cram. Pap. Exot. pl. 29. f. 2, 2 *b* (1790).

Amauris echeria, Hübner, Verz. bek. Schmett. p. 14.

Danais echeria, Trimen, Rhop. Afr. Austr. i. p. 86; Trans. Linn. Soc. xxvi. p. 506, pl. 42. f. 3.

Danais vaillantiana, Godart, Enc. Méth. ix. p. 183 (1819).

Hab. South Africa (Cape colony).

2. Nebroda albimaculata.

Amauris albimaculata, Butler, Ann. Nat. Hist. ser. 4, vol. xvi. 1875, p. 394.

Danais echeria, var., Trimen, Trans. Linn. Soc. xxvi. p. 507, pl. 42. f. 7.

Hab. South Africa (Natal).

Berethis, n. g.

Fore wing short, triangular; costal margin very slightly arched; exterior margin very oblique; posterior margin straight; cell narrow; second subcostal emitted immediately before end of the cell; upper discocellular short and slightly curved, lower oblique. Hind wing broadly conical; exterior margin uneven, convex hind-

ward; costal vein much curved from base; cell broad, triangular; discocellulars very oblique, upper short. Male with a single elongated indistinct glandular patch or scent-producing organ at end of submedian vein; anal conchs similar to those in *Amauris*. Antennæ thicker at the tip.

BERETHIS PHÆDON.

Papilio phædon, Fabricius, Ent. Syst. Suppl. p. 423 (1798).

Danais phædon, Godart, Enc. Méth. ix. p. 183; Butler, Catal. Lep. Fabr. B. M. p. 4.

Euplœa phædon, Boisduval, Faune Ent. de Mad. p. 37, pl. 3. f. 3 (1833).

Hab. Mauritius; Madagascar.

LINTORATA, n. g.

Wings of similar shape to *Tirumala*. Hind wing with a broad spatula-shaped scent-pouch on submedian vein.

LINTORATA MENADENSIS, n. sp.

Male. Dark purplish brown: fore wing with pale brownish-ochreous streaks along lower part of the cell, three contiguous large elongated spots below the cell between the median veins, two central discal smaller round spots, above which is a subapical series of slender oval spots, of which latter the three upper are smallest; a submarginal row of small round spots and a marginal lower row of very small spots. Hind wing with pale brownish-ochreous streaks within and below the cell, a contiguous discal series of five small spots, a submarginal row, and a marginal row of very small spots.

Expanse $3\frac{3}{4}$ inches.

Hab. Menado, S. Celebes (*Wallace*). In coll. Oxford University Museum.

b. "Sexual mark" or scent-producing organ between the median and submedian veins.

MELINDA, n. g.

Differs from *Tirumala* in the fore wing having the costa less arched, the apex narrow and prolonged, the exterior margin being more oblique and concave in the middle, the posterior margin shorter, and the cell comparatively narrower and longer. Hind wing broader, the abdominal margin longer, the cell broader and longer, the discocellular straighter, the glandular pouch being similar. Palpi more densely covered with longer hair; antennæ more gradually clavate and less pointed at tip.

MELINDA FORMOSA.

Danais formosa, Godman, Proc. Zool. Soc. 1880, p. 183, pl. 19. f. 1.

Hab. East Africa (Nguru hills, Zanzibar district).

Genus Tirumala.

Tirumala, Moore, Lep. of Ceylon, i. p. 4 (1880).

Danais (*Tirumala*), Marshall & de Nicéville, Butt. of India &c. p. 45 (1882).

Fore wing broad, triangular; first subcostal branch emitted at one fifth before end of the cell and free from the costal, second at end of the cell; discocellulars bent acutely inward in the middle below upper radial, and emitting a short point within the cell from the angle; lower discocellular slender near its upper end; submedian with a short lower basal veinlet. Hind wing broadly oval, exterior margin very convex; costal vein slightly curved; cell short and anteriorly oblique; second subcostal branch emitted nearer the first, and upper median nearer the middle branch than in *Radena*. Male with an open scent-pouch between the lower median and submedian veins, the pendent sac of which is prominent on the underside of the wing (the interior of the pouch containing, in the dried specimen, numerous white filaments). Antennæ shorter than in *Radena*, the club also shorter and tip more pointed. Apical joint of palpi shorter.

Larva with two pair of fleshy filaments.

Type *T. limniace*, Linn.

1. Tirumala petiverana.

Danais petiverana, Doubleday & Hewitson, Diurn. Lep. p. 93, pl. 12. f. 1 (1847); v. d. Decken, Reise Ostafr. p. 368 (1873).

Danais leonora, Butler, Proc. Zool. Soc. 1866, p. 51; Lep. Exotica, p. 53, pl. 20. f. 2.

Petiver, Gazoph. i. pl. 3. f. 4.

Hab. West Africa (Angola).

2. Tirumala limniace.

Papilio limniace, Cramer, Pap. Exot. i. pl. 59. f. D, E (1775), ♀.

Danais limniaceæ, Godart, Enc. Méth. ix. p. 191 (1819).

Tirumala limniaceæ, Moore, Lep. of Ceylon, i. p. 4, pl. 1. f. 3.

Danais limniace, Semper, Mus. Godeffroy, xiv. Lep. pl. 8. f. 6, ♂.

Danais (*Tirumala*) *limniace*, Marshall & de Nicéville, Butt. of India, p. 47 (1882).

Papilio exoticus, Gmelin, Syst. Nat. i. 5, p. 2289 (1788–93); Zschach, Mus. Lesk. Ent. p. 89 (1788).

Papilio similis, (part.), Fabricius, Ent. Syst. iii. p. 58 (1793).

Danais leopardus, Butler, P. Z. S. 1866, p. 52.

Petiver, Gazophyl. i. pl. 92. f. 13.

Hab. India; Ceylon; Nicobars; British Burmah; Cambodia; Hongkong; Formosa.

3. Tirumala orientalis.

Danais orientalis, Semper, Mus. Godeffroy, xiv. p. 140, pl. 8. fig. 5, ♂ (1879).

Hab. Philippines (*Luzon*).

4. Tirumala melissa.

Papilio melissa, Cramer, Pap. Exot. iv. pl. 377, f. C, D (1781), ♂. Herbst, Pap. pl. 125. f. 3, 4.

Hab. Java (*Horsf.*). In coll. British Museum.

5. Tirumala conjuncta, n. sp. (Plate XXIX. fig. 2, ♂.)

Euplœa limniace, Horsfield, Catal. Lep. Mus. E.I. C. pl. 3. f. 6, larva (1829).

Danais limniacæ, Moore, Catal. Lep. Mus. E.I. C. i. p. 121, pl. 4. f. 3, 3 *a*.

Limnas (*Thal.*) *limniace*, Hübn. Exot. Schmett. i. pl. 19, ♂.

Allied to *T. melissa*. Smaller in size, but of the same colour. Differs on the fore wing in the terminal discoidal and discal markings being broader, the duplex streak between the lower median and submedian confluent, and the row of submarginal spots smaller and round. Hind wing with broader and slightly longer markings, the interspaces between the veins being entirely covered, leaving but a very slender single line between, within the cell, and one beneath it; submarginal row of spots more rounded.

Expanse $2\frac{1}{4}$ to 3 inches.

Hab. Java (*Horsfield*). In coll. British Museum and F. Moore.

This appears to be the common Java form, several specimens having been reared from the larvæ by the late Dr. Horsfield.

6. Tirumala choaspes.

Danais choaspes, Butler, P. Z. S. 1866, p. 52.

Hab. Celebes (Macassar).

7. Tirumala ino.

Danais ino, Butler, P. Z. S. 1871, p. 79, ♀.

Hab. Sula (*Wallace*). In coll. H. G. Smith.

8. Tirumala gautama. (Plate XXXI. fig. 3.)

Danais gautama, Moore, Ann. Nat. Hist. ser. 4, vol. xx. p. 43, ♀ (1877).

Danais (*Tirumala*) *gautama*, Marshall & de Nicéville, Butt. of India &c. p. 45 (1882).

Hab. British Burmah (Arakan, Moulmein, Mergui). In coll. F. Moore.

9. Tirumala septentrionis. (Plate XXIX. fig. 3, ♂.)

Danais septentrionis, Butler, Entom. Monthly Mag. xi. p. 163 (1874); Semper, Mus. Godeffroy, xiv. Lep. pl. 8. f. 7, ♂; Distant, Rhop. Malayana, p. 16, pl. 1. f. 9 (1882).

Tirumala septentrionis, Moore, Lep. of Ceylon, i. p. 5, pl. 1. f. 2 (1881).

Danais (*Tirumala*) *septentrionis*, Marshall & de Nicéville, Butt. of India, p. 48, pl. 6. f. 8, ♂ ♀ (1882).

Hab. India; Ceylon; British Burmah; Siam; Malay peninsula; Penang; Java (*Horsf.*).

10. Tirumala microsticta.

Danais microsticta, Butler, Entom. Monthly Mag. xi. p. 163 (1874).

Hab. Borneo (type); Java (*Horsf.*); Nias. In coll. British Museum.

A single specimen collected in Java by Dr. Horsfield is identical with the Bornean type.

11. Tirumala leucoptera.

Danais leucoptera, Butler, Entom. Monthly Mag. xi. p. 163 (1874).

Hab. Dorey, New Guinea.

12. Tirumala ishmoides, n. sp.

Male. Fore wing comparatively narrower and more produced at the apex than in allies, with a very narrow basal streak and a small spot near lower end of the cell, a fusiform and a widely separated clavate streak above the submedian, two medial discal oval spots, and three slender subcostal streaks, all placed in regular successive order; submarginal and marginal spots small. Hind wing with the basal markings very similar to those in *T. leucoptera*, but somewhat broader, the costal and penultimate streaks being larger; two marginal series of spots small and slender.

Expanse $3\frac{1}{2}$ inches.

Hab. Celebes. In coll. G. Semper.

Has a similarity of form and pattern of markings to *Radena ishma*, also from the Celebes.

13. Tirumala hamata.

Euplœa hamata, M'Leay, King's Survey of Australia, ii. App. p. 46 (1827).

Danais hamata, Semper, Mus. Godeffroy, xiv. Lep. p. 139, pl. 8. f. 1, 2, ♂ (1879).

Danais australis, Blanchard, Voy. Pôle Sud, Ins. p. 388, pl. 2. f. 5, 6 (1837–40).

Hab. Australia.

14. Tirumala angustata, n. sp.

Intermediate between *T. hamata* and *T. melittula*. Fore wing with the discoidal and basal streak very slender, the terminal spot narrower than in *T. hamata* and much more so than in *T. melittula*; the two transverse discal series of spots disposed as in *T. melittula*, except that the upper elongated streaks are longer and the lower spot is widely disconnected from the basal streak below the cell; the marginal spots are slightly larger. Hind wing with similar but somewhat larger markings to those in *T. melittula*, the dark central streak within the cell less forked and not touching the discocellular veinlet.

Expanse $2\frac{2}{8}$ to $2\frac{5}{8}$ inches.

Hab. Tongatabu, Friendly Islands. In coll. British Museum.

15. TIRUMALA MELITTULA.

Danais melittula, H. Schäff. Stettin. ent. Zeit. 1869, p. 70; Semper, Mus. Godeffroy, xiv. Lep. pl. 8. f. 3, ♂.

Hab. Upolu, Samoa Islands.

16. TIRUMALA OBSCURATA.

Danais obscurata, Butler, P. Z. S. 1874, p. 275.

Hab. Upolu, Solomon Islands.

17. TIRUMALA MODERATA.

Danais moderata, Butler, P. Z. S. 1875, p. 611.

Hab. New Hebrides (Vate).

18. TIRUMALA NEPTUNIA.

Danais neptunia, Felder, Reise Novara, Lep. ii. p. 349, pl. 43. f. 1 (1867); Semper, Mus. Godeffroy, xiv. Lep. pl. 8. f. 4, ♂ (1879).

Hab Fiji Islands.

19. TIRUMALA CLARIBELLA.

Danais claribella, Butler, Ann. Nat. Hist. ser. 5, vol. x. p. 36, ♀ (1882).

Hab. Fiji Islands.

NASUMA, n. g.

Male. Fore wing triangular; costa long, apex much produced; exterior margin very oblique, convex below the apex and waved hindward; posterior margin very short; discocellulars convex, emitting a short discoidal spur within the cell in a line with lower radial. Hind wing broad, triangularly oval; exterior margin sinuous, oblique, and prolonged hindward; anterior and abdominal margin long; glandular pouch or scent-producing organ small, and covered by a projecting lappet.

NASUMA ISMARE.

Papilio ismare, Cramer, Pap. Exot. iii. pl. 279. f. E, F (1782), ♂.

Danais ismare, Godart, Enc. Méth. ix. p. 190.

Danais ismareola, Butler, P. Z. S. 1866, p. 50, ♀; id. p. 172, t. 1 (hermaphrodite).

Hab. Moluccas (Ternate); Amboina.

Genus ANOSIA.

Anosia[1], Hübner, Verz. bek. Schmett. p. 16 (1816).

[1] Hübner's first species of *Anosia* (*archippus*, Cram. pl. 16. f. *a*, *b*) is congeneric with the species of his genus *Callianira* (Hübn. Verz. p. 38); and his second species (*misippus*, Linn.) is referable to his genus *Esoptria* (Hübn. p. 45), both of which species were placed in the genus *Anosia* by Hübner, owing to their resemblance to the others. The consequent exclusion of these two species from the genus thus necessarily limits it to the remainder; his third species (*menippe*) therefore becomes the type. Hübner's own action, in subsequently using the generic name for a conspecific insect, fixes this third-cited species as the type.

Danaida[1], Latreille, Hist. Nat. des Crust. et Ins. xiv. p. 108 (1805); Scudder, Bull. Buff. Soc. N. H. 1875, p. 245.

Euplœa (part.), Fabricius, Illiger's Mag. vi. p. 280 (1807).

Danais, Latreille, Illiger's Mag. vi. p. 292 (1807); Strecker, Butt. & Moths N. Amer. p. 105 (1878).

Danaus (part.)[2], Latr. Gen. Crust. et Ins. iv. p. 201 (1809); id. Consid. Gén. Crust. et Ins. p. 352 (1810).

Danaus, Scudder, Syst. Revis. Amer. Butt. p. 7, Peabody Acad. of Sci. (1871).

Fore wing lengthened, triangular; apex prolonged; exterior margin very oblique; cell long; upper discocellular bent inward, deeply concave and angled before reaching the lower radial, emitting a short discoidal spur within the cell from the point; lower discocellular very oblique, submedian with a short lower basal veinlet. Hind wing oval; cell long; discocellulars long and very oblique. Male with a small pouch or scent-producing organ close to lower median vein, much less prominent than in *Salatura* (*S. genutia*). Thorax and base of abdomen very hairy. Antennæ with a well-formed stout club at the tip. Palpi stout, densely hairy to the tip. Middle and hind legs black.

Larva (figured by Smith-Abbott) with two pairs of fleshy filaments.

Type *P. plexippus* (*P. archippus*, Fabr.).

1. Anosia plexippus.

Papilio plexippus, Linn. Syst. Nat. ed. x. p. 471 (1758); Mus. Ulr. p. 262 (1764); Syst. Nat. ed. xii. p. 767 (1767); Cram. Pap. Exot. iii. pl. 206. f. E, F, ♀ (1779); Fabr. Ent. Syst. iii. p. 49 (1793); Herbst, Pap. pl. 156. f. 1, 2; De Beauvoir, Ins. Afr. et Amér. p. 172, pl. 4. f. *a*, *b*; Turton, Syst. of Ent. ii. p. 59 (1806).

Danaida plexippus, Latreille, Hist. Nat. Crust. et Ins. xiv. p. 108 (1805); Scudder, Bull. Buffalo Soc. Nat. Sci. 1875, p. 245.

Euplœa plexippus, Fabricius, Illiger's Mag. vi. p. 280 (1807).

Limnas ferrugineus plexippus, Hübner, Samml. exot. Schmett. Bd. i. pl. 20. f. 2 (1806).

Danais plexippus, Latreille, Illiger's Mag. vi. p. 292 (1807); Strecker, Lep. N. Amer. p. 105 (1878).

Danaus plexippus, Latreille, Gen. Crust. et Ins. iv. p. 201 (1809); id. Consid. Gén. C. et Ins. p. 353 (1810); Say, Amer. Ent. iii. pl. 54, ♂ (1828); Peale, Lep. Amer. i. pl. 7 (1833); Scudder, Syst. Rev. Amer. Butt. Peabody Acad. Sci. 1871, p. 7.

Idea plexippus, Eschscholtz, Kotzeb. Reise, iii. p. 209, pl. 7. f. 14, *a*, *b* (1821).

Papilio erippus, Cramer, Pap. Exot. i. pl. 3. f. A, B, ♂ (1775).

Danais erippus, Semper, Mus. Godeffroy, xiv. Lep. p. 41 (1879).

Papilio archippus, Fabricius, Ent. Syst. iii. p. 49 (1793); Smith,

[1] Preoccupied in botany. Also a plural name, and therefore inadmissible.

[2] The name "*Danaus*" having been adopted in a generic sense by Esper, Panzer, &c. for species of *Pierinæ*, previous to its adoption by Latreille in 1807, the name "*Danais*" cannot be retained in this subfamily of Butterflies. (See note to subfamily *Euplœinæ*, p. 213, *antè*.

Abbott, Ins. Georgia, i. pl. 6 (1797); Brown, Const. Miscellany, Butt. i. p. 156, pl. 23 (1832).

Danais archippus, Godt. Enc. Méth. ix. p. 184; Boisd. et Lec. Lep. Amér. Sept. p. 137, pl. 40 (1833); Harris, Ins. Injur. to Veg., Flint's ed. p. 280; Saunders, Canadian Ent. v. pp. 4–8, figs. 1–5 (1873); Edwards, Birds of N. A. i. p. 9; Butler, Catal. Fabrician Lep. B. M. p. 5.

Anosia menippe, Hübner, Verz. bek. Schmett. p. 16 (1816).

Anosia megalippe, Hübner, Samml. exot. Schmett. Bd. ii. pl. 7, ♂ (1820–21).

Petiver, Mus. p. 52, no. 527 (1695).

Catesby, Nat. Hist. Carolina, ii. p. 88, pl. 88 (1743).

Hab. N. America (southern parts of British Possessions, United States); Bermudas; Antilles; Mexico; Central and South America as far as Rio.

2. Anosia plexaure.

Danais plexaure, Godart, Enc. Méth. ix. p. 184 (1819).

?*Danais brasiliensis*, Capr. Ann. Ent. Belg. 1874, p. 22.

Hab. Brazil.

3. Anosia cleophile.

Danais cleophile, Godart, Enc. Méth. ix. p. 185 (1819); Doubleday & Hewits. D. Lep. pl. 12. f. 3.

Hab. Haiti; Jamaica.

Tasitia, n. g.

Anosia (part), Hübner, Verz. bek. Sch. p. 15.

Anosia, Scudder, Bull. Buff. Soc. N. H. 1875, p. 246.

Fore wing shorter and less regularly triangular in form than in *Anosia* (*Plexippus*); costa arched at the base, exterior margin slightly convex below the apex; cell comparatively shorter and broader; discocellulars shorter, concave in the middle, emitting a short discoidal spur within the cell opposite the lower radial; lower discocellular slender at its upper end. Hind wing narrower, much more convex internally, the costal and abdominal margins shorter; cell shorter and broader; first subcostal branch emitted further from the base; discocellulars shorter, the upper much bent. Male with a larger but shorter and more conspicuous scent-pouch close to the lower median vein. Antennæ shorter, club slender at tip. Palpi smaller, more slender and less hairy. Middle and hind legs black.

Larva (*T. berenice*, figured by Smith Abbott, and *T. eresimus*, figured by Stoll) with three pairs of fleshy filaments.

Type *T. gilippus*, Cram.

1. Tasitia berenice.

Papilio berenice, Cramer, Pap. Exot. iii. pl. 205. f. E, F (1779).

Danais berenice, Boisd. et Lec. Lép. Amér. Sept. p. 134, pl. 39 (1833); Butler, Catal. Lep. Fabr. B. M. p. 4; Proc. Zool. Soc.

1866, p. 454; Strecker, Lep. N. Amer. p. 106 (1878); Godman & Salvin, Biologia Centr.-Amer. Lep. p. 3.

Anosia berenice, Scudder, Bull. Buffalo Soc. Nat. Hist. p. 246 (1875).

Papilio erippus, Fabr. Mant. Ins. ii. p. 27 (nec Cram.).

Anosia erippe, Hübn. Verz. bek. Schmett. p. 16.

Danais erippe, Godt. Enc. Méth. ix. p. 186.

Papilio gilippus, Smith, Abbott, Lep. Ins. Georgia, i. pl. 7 (nec Cram.).

Hab. North America (Southern United States, New Mexico).

2. Tasitia strigosa.

Danais strigosa, Bates, Ent. Monthly Mag. i. p. 32 (1864); Distant, Proc. Zool. Soc. 1876, p. 10.

Anosia strigosa, Scudder, Bull. Buff. Soc. N. H. p. 246.

Hab. North America (Texas).

3. Tasitia jamaicensis.

Danais jamaicensis, Bates, Ent. Monthly Mag. i. p. 33 (1864); Butler, Proc. Zool. Soc. 1866, p. 454.

Sloane's 'Jamaica,' ii. p. 214, pl. 239. f. 5, 6 (1725).

Hab. Jamaica.

4. Tasitia gilippus.

Papilio gilippus, Cramer, Pap. Exot. i. pl. 26. f. E, F, ♀ (1775).

Danais gilippe, Godt. Enc. Méth. ix. p. 186.

Danais gilippus, Butler, Catal. Fabrician Lep. B. M. p. 4.

Limnas ferrugineus vincetoxici, Hübn. Samml. exot. Schmett. Bd. i. pl. 23 (1806).

Anosia vincetoxici, Hübn. Verz. bek. Schmett. p. 16.

Idea manuja, Esch. Kotzeb. Reise, iii. p. 209, pl. 7. f. 13, *a*, *b* (1821).

Hab. South America.

5. Tasitia thersippus.

Danais thersippus, Bates, Proc. Zool. Soc. 1863, p. 243.

Hab. ——?

6. Tasitia cleothera.

Danais cleothera, Godt. Enc. Méth. ix. p. 185 (1819); Doubleday et Hewits. D. Lep. pl. 12. f. 2; Godman et Salvin, Biologia Centr.-Amer., Lep. p. 3.

Hab. Central America.

7. Tasitia eresimus.

Papilio eresimus, Cramer, Pap. Exot. ii. pl. 175. f. G, H (1777); Stoll, Suppl. Cram. pl. 6. f. 4, larva.

Anosia eresima, Hübn. Verz. bek. Schmett. p. 16.

Danais eresimus, Butler, Catal. Fabrician Lep. B. M. p. 5; Proc. Zool. Soc. 1866, p. 454.

Hab. South America.

8. Tasitia xanthippus.

Danais xanthippus, Felder, Wien. Ent. Monats. 1860, p. 100.
Hab. Brazil.

9. Tasitia hermippus.

Danais hermippus, Felder, Reise der Novara, Lep. ii. p. 348 (1867).
Hab. South America (New Granada; Bogota).

Genus Limnas.

Limnas[1], Hübner, Tentamen, i. p. 1 (1806), nec Boisd. et auct.
Danais (*Salatura*, sect. A), Marshall and deNicéville, Butt. of India &c. p. 49 (1882).

Fore wing narrower, and of a comparatively more lengthened triangular form than in *Salatura* (*genutia*); costa less arched and the apex more produced, exterior margin less uneven. Hind wing regularly convex exteriorly and the margin more even; costal vein abruptly arched; cell shorter at its upper end; discocellulars bent inward near the middle, emitting a short discoidal spur or veinlet within the cell from the angle, lower discocellular slender at its upper end, lower radial from middle of discocellulars opposite the inner spur. Pouch in male similar. Antennæ stouter, with a well formed thick club.

Larva with three pairs of fleshy filaments.

Type *L. chrysippus*.

1. Limnas chrysippus.

Papilio chrysippus, Linnæus, Syst. Nat. (1758) p. 471; Mus. Ulr. p. 263 (1764); Syst. Nat. i. 2, p. 767 (1767); Cramer, Pap. Exot. ii. pl. 118. f. B, C; Fabricius, Ent. Syst. iii. 1, p. 50; Hübn. S. eur. Schmett. i. pl. 133. f. 678–9.

Limnas ferr. chrysippus, Hübn. Samml. exot. Schmett. Bd. i. pl. 22. f. 1–4 (1806).

Limnas chrysippus, Hübner, Tentamen, i. p. 1 (1806).

Euplœa chrysippus, Hübner, Verz. bek. Schmett. p. 15; Herbst, Pap. pl. 155. f. 1, 2; Ochsenh. pl. 4. f. 11, 12; Zink. Somm. Nova Acta Acad. Nat. Cur. 1831, p. 173.

Danais chrysippus, Godart, Enc. Méth. ix. p. 187; Lép. de France, p. 106, pl. 27. f. 1, 2; Latreille, Dict. d'Hist. Nat. 2nd ed. pl. 9, p. 118; Moore, Catal. Lep. Mus. E.I. C. i. p. 126; Trimen, Rhop. Africæ Austral. p. 88; Butler, Catal. Lep. Fabr. B. M. p. 5; Distant, Rhop. Malayana, p. 20, pl. i. fig. 10.

Salatura chrysippus, Moore, Lep. of Ceylon, i. p. 7, pl. 3. f. 1.

Papilio ægyptius, Schreb. Ins. p. 9, f. 11, 12 (1759).

Danaida chrysippus, Aurivillius, Kong. Vet.-Akad. Handl. 1882, p. 70.

[1] Hübner having adopted this name for *P. chrysippus* and other species of Danainæ in the Samml. exot. Schmett., thus fixed its type and its restriction to the present group of Butterflies.

Danais (*Salatura*) *chrysippus*, Marshall and de Nicéville, Butt. of India, p. 50, pl. 6. fig. 10, ♂ ♀ (1882).

Papilio asclepiadis, Gagl. Atti Instit. Incorr. Napol. i. p. 155, pl. 1 (1811); Ochsenh. Schmett. Europ. iv. p. 124 (1816).

Hab. S.E. Europe, W. and S. Africa. Madagascar, Rodriguez, Johanna, Mauritius, Socotra, Turkey in Asia, Persia, Afghanistan, Candahar, India, Ceylon, Nicobars, Burmah, Siam, Malay peninsula, Penang, Singapore, Sumatra, Lombock, Kaiva, S. China, Hainan, Formosa, Philippines.

2. Limnas alcippus.

Papilio alcippus, Cramer, Pap. Exot. ii. pl. 127. f. E, F (1777); Fabr. Ent. Syst. iii. 1, p. 50; Herbst, Pap. pl. 155. f. 5, 6.

Danais alcippus, Godart, Enc. Méth. ix. p. 188; Lép. de France, p. 110, pl. 17. f. 3; Peters, Reise n. Mossambique, Zool. p. 370 (1862); Butler, Catal. Lep. Fabr. B. M. p. 5.

Hab. Sierra Leone; Ashanti.

3. Limnas alcippoides, n. sp. (Plate XXXI. fig. 1.)

? *Danais alcippus*, Marshall and de Nicéville, Butt. of India, p. 51.

From W. African specimens of *L. alcippus* this differs in the fore wing having a broader series of white subapical oblique spots, the white spot below these (between the upper and middle median veins) is much larger; and there is a lower discal spot on the red area between the middle and lower medians, which is not present in any West-African specimens that I have seen. The hind wing has somewhat less white than the African specimens.

Expanse 3 inches.

Hab. Nepal (*Gen. Ramsay*). In coll. F. Moore.

Marshall and de Nicéville refer to *L. alcippus* as occurring in the plains of Northern India (Sind, Nurpur in the Punjab), in the N.W. Provinces (Lucknow), and also at Rangoon.

4. Limnas dorippus.

Euplœa dorippus, Klug, Symb. Phys. pl. 48. f. 1–5 (1829).

Danais dorippus, Peters, Reise n. Mossamb. Zool. p. 371 (1862); Oberthür, Etud. Ent. 1878, p. 24, pl. 1. f. 5.

Danais (*Salatura*) *dorippus*, Marshall and de Nicéville, Butt. of India, p. 52 (1882).

Hab. E. Africa (Zanzibar); Arabia, S. Persia, Beluchistan, Western India (Sind, Kutch). In coll. F. Moore.

5. Limnas bataviana, n. sp.

Euplœa chrysippus, Horsfield, Catal. Lep. Mus. E.I. C. pl. 2. figs. 9, 9*a*, larva (1828).

Danais chrysippus, Moore, Catal. Lep. Mus. E.I. C. i. pl. 4. figs. 7. 7*a*, larva (1857).

Near to *L. cratippus*. Differs in the fore wing being com-

paratively more produced at the apex, the dark apical area of a less blackish tint, spreading less over the disk, and has there a more regular scalloped border; marginal rows of spots similar; there are two lower discal white spots in the male, making three from below the oblique subapical band, the upper spot being larger (in *L. cratippus* there is only one spot); at the end of the cell is also a more or less distinct spot; hind wing with a distinct row of white spots on the blackish marginal band.

Expanse $2\frac{1}{4}$ to 3 inches.

Hab. Java (*Horsf.*). In colls. British Museum and F. Moore.

6. Limnas bowringi, n. sp.

Differs from *L. chrysippus* on the fore wing in the subapical macular band being composed of four somewhat longer spots, and having two lower spots of large size (larger than in any specimen of *L. chrysippus* under examination); the two costal spots are also somewhat longer, and the submarginal middle spots are larger.

Expanse, ♂ ♀ $3\frac{1}{2}$ inches.

Hab. Hongkong. In coll. British Museum.

A female variety (?) from Hongkong, also in the British-Museum collection, has a large dentate spot between the small spot beyond the end of the cell and the subapical series.

7. Limnas cratippus.

Danais cratippus, Felder, Sitzb. Akad. Wiss., math.-nat. Cl. xl. p. 449 (1860).

Hab. Amboina (type); Ceram.

8. Limnas petilia.

Papilio petilia, Stoll, Cram. Pap. Exot. Suppl. pl. 28. f. 3 (1790).

Danais petilia, Godart, Enc. Méth. ix. p. 189; Semper, Mus. Godeffroy, xiv. p. 141 (1879).

Hab. Australia (New Holland, Moreton Bay).

Genus Salatura.

Salatura, Moore, Lep. of Ceylon, i. p. 5 (1880).

Euplœa (part), Hübner, Verz. bek. Schmett. p. 15 (1816).

Danais (part), Godart, Doubleday, Hewitson, Butler, Distant.

Danais (*Salatura*, sect. B), Marshall and de Nicéville, Butt. of India &c. p. 49 (1882).

Fore wing subtriangular, costa slightly arched, apex more or less rounded, exterior margin waved, oblique and slightly convex in the middle, posterior margin slightly recurved; costal vein extending to two thirds the wing; first subcostal branch emitted at one fifth before end of the cell, second at the end of the cell, third and fourth at equal distance beyond its end; cell long; upper discocellular bent inward and angled at lower end above the lower radial, emitting a short discoidal spur within the cell from the lower angle; lower discocellular slender at its upper end, outwardly oblique; radials

from angles of upper discocellular; median branches widely separated, submedian slightly recurved, with a short slender veinlet emitted from below near the base. Hind wing broadly oval; exterior margin rounded, slightly sinuous; costal vein short, curved upward; precostal straight; first subcostal emitted before end of the cell and curving upward before the apex, second slightly bent at end of the cell; discocellulars very oblique, upper shortest and slightly concave, radial from their middle; second median branch from near end of the cell, lower bent near its base; submedian nearly straight; internal recurved. Male with an open scent-pouch between lower median and submedian veins. Body long; palpi pilose; middle and hind legs slender; antennæ with a gradually formed lengthened slender club.

Larva with three pairs of fleshy filaments.

Type *S. genutia.*

1. Salatura genutia.

Papilio genutia, Cramer, Pap. Exot. iii. pl. 206. f. C, D (1779); Herbst, Pap. pl. 154. f. 1, 2.

Limnas ferruginea genutia, Hübner, Samml. exot. Schmett. Bd. i. pl. 21. f. 1, 2 (1806).

Salatura genutia, Moore, Lep. of Ceylon, i. p. 6, pl. 4. f. 2 (1880).

Danais genutia, Distant, Trans. Ent. Soc. Lond. 1877, p. 3; Rhop. Malayana, p. 18, pl. 2. fig. 2, ♂ (1882).

Danais (*Salatura*) *genutia*, Marshall and de Nicéville, Butt. of India, p. 52 (1882).

Papilio plexippus (part), Fabr. Spec. Ins. p. 55.

Euplœa plexippus (part), Hübn. Verz. bek. Schmett. p. 15.

Danais plexippus (part), Godt. Enc. Méth. ix. p. 186.

Danais plexippus, Doubleday and Hewits. Gen. D. L. p. 92; Moore, Catal. Lep. Mus. E.I. C. i. p. 124; Butler, P. Z. S. 1866, p. 47.

Danaida plexippus, Aurivillius, Kongl. Vet.-Akad. Handl. 1882, p. 69.

Hab. India, Ceylon, Andamans, Nicobars, Burmah, Siam, Malay peninsula, Penang, South China, Hainan, Formosa, Hongkong, Philippines.

2. Salatura nipalensis. (Plate XXXI. fig. 2.)

Danais nipalensis, Moore, Ann. Nat. Hist. 1877, p. 43.

Danais (*Salatura*) *nipalensis*, Marshall and de Nicéville, Butt. of India, p. 54 (1882).

Hab. Nepal (*Gen. Ramsay*). In coll. F. Moore.

3. Salatura intensa, n. sp.

Euplœa plexippus, Horsfield, Catal. Lep. Mus. E.I. C. pl. 3. f. 8, larva (1829); Zink. Somm. Nova Acta Acad. Nat. Cur. 1831, p. 172.

Danais philene, Moore, Catal. Lep. Mus. E.I. C. i. p. 124, pl. 4. f. 5, 5*a*.

Smaller than *S. genutia.* Differs from it in the red interspace

on both wings being of a much darker tint. On the fore wing there is no red spot between the upper and middle median veins, which is always present in *S. genutia*; the subapical white spots are also narrower. On the hind wing there is only a single row of marginal spots, which are very small, and in the male obsolescent.

Expanse, ♂ $2\frac{3}{8}$, ♀ $2\frac{6}{8}$ inches.

Hab. Java (*Horsfield*); Lombok; Borneo. In colls. British Museum and F. Moore.

Note. The larva of this species figured by Horsfield (*l. c.*) is erroneously (?) represented with only two pairs of fleshy filaments.

4. Salatura nesippus.

Danais nesippus, Felder, Verh. zool.-bot. Ges. xii. p. 486 (1862); Reise der Novara, Lep. ii. p. 347; Moore, P.Z.S. 1877, p. 582.

Danais (*Salatura*) *nesippus*, Marshall & de Nicéville, Butt. of India, p. 55 (1882).

Hab. Nicobars (Sambelong, Nancowry, Kar Nicobar).

5. Salatura melanippus.

Papilio melanippus, Cramer, Pap. Exot. ii. pl. 127. f. A, B (1777); Herbst, pl. 155. f. 7, 8.

Danais melanippus, Godart, Enc. Méth. ix. p. 189.

Hab. Java (*Horsfield*).

6. Salatura intermedia, n. sp.

Danais genutia, var., Distant, Rhopaloc. Malayana, p. 18. pl. 2. f. 3, ♂.

Intermediate between *S. genutia* and *S. sumatrana*. Fore wing, in *both sexes*, like that of *S. genutia*, except that the black median veins are narrower. Hind wing, in *both sexes*, with similar breadth and length of interspaces between the veins as in *S. genutia*; but these interspaces are white, and their outer ends only slightly suffused with red; the marginal white spots are larger than those in *G. sumatrana*.

Expanse, ♂ ♀ $3\frac{3}{8}$ inches.

Hab. Malacca, Singapore. In colls. Brit. Museum and F. Moore.

7. Salatura hegesippus.

Papilio hegesippus, Cramer, Pap. Exot. ii. pl. 180. f. A (1777), ♀; Fabricius, Ent. Syst. iii. p. 52.

Danais hegesippus, Godart, Enc. Méth. ix. p. 189.

Danais (*Salatura*) *hegesippus*, Marshall & de Nicéville, Butt. of India, p. 55 (1882).

Danais melanippus, Gray, Lep. Ins. of Nepal, p. 10, pl. 9. f. 1 (1846).

Danais melanippus, var. *hegesippus*, Distant, Rhop. Malayana, p. 19, pl. 2. f. 1 (1882).

Hab. Eastern Bengal, Orissa, British Burmah, Malay peninsula, Penang.

Note. The specimen of *S. hegesippus* in the British-Museum col-

lection labelled "Java" was found, upon examination of the original register, to have been received from Penang.

8. Salatura sumatrana, n. sp.

Smaller than *S. hegesippus*. Differs in both sexes in the fore wing being marked like *S. intensa*, and the black median vein extending narrowly to the base, not broadly so as in *S. hegisippus*: the hind wing has broader white interspaces between the veins, these white streaks all being red at their outer end; the marginal rows of white spots are smaller and are disposed in a more regularly linear succession, not placed in obliquely opposite pairs as in *S. hegesippus*.

Expanse, ♂ ♀ $2\frac{3}{4}$ inches.

Hab. Sumatra. In coll. F. Moore.

9. Salatura lotis.

Papilio lotis, Cramer, Pap. Exot. iii. pl. 230, f. D, E (1780).
Danais lotis, Godart, Enc. Méth. ix. p. 189.
Hestia thoë, Hübner, Verz. bek. Schmett. p. 15 (1816).
Hab. Borneo.

10. Salatura edmondi.

Danais edmondii, Bougainville, Voy. Thétis, ii. p. 344, pl. 44. f. 3 (1837).
Hab. Philippines (Bohol, Mindanao, Luzon).

11. Salatura nubila.

Danais nubila, Butler, P. Z. S. 1866, p. 171.
Hab. Gilolo.

11 *a*. Salatura philene.

Papilio philene, Cramer, Pap. Exot. iv. pl. 375. figs. A, B (1782).
Danais philene, Godart, Enc. Méth. ix. p. 187.
Hab. Amboina. In coll. British Museum.

12. Salatura artenice.

Papilio artenice, Cramer, Pap. Exot. iv. pl. 375. f. C, D (1782).
Danais artenice, Godart, Enc. Méth. ix. p. 187.
Hab. ? Java.

13. Salatura mysolica, n. sp.

Intermediate between *S. artenice* and *S. nubila*. Comparatively larger than *S. nubila*. On the fore wing the red streak is reduced to a very slender line along lower end of the cell; the subapical spots are all much larger. On the hind wing the dull red colour is restricted to the middle of the wing, and extends to only half the space between end of the cell and outer margin.

Expanse $3\frac{3}{8}$ inches.

Hab. Mysol (*Wallace*). In coll. British Museum.

14. Salatura conspicua.

Danais conspicua, Butler, P. Z. S. 1866, p. 49, pl. 4. f. 2.

Danais leucoglene, Felder, Reise d. Novara, Lep. ii. p. 347, pl. 43. f. 2 (1867).

Hab. Celebes.

15. Salatura fulgurata.

Danais fulgurata, Butler, P. Z. S. 1866, p. 48, pl. 4. f. 1; Kirsch, Mitth. zool. Mus. Dresden, i. p. 114 (1877).

Hab. Celebes.

16. Salatura chionippe.

Euplœa chionippe, Hübner, Samml. exot. Schmett. Bd. ii. pl. 6. f. 1, 4, ♂ ♀ (1820–24).

Idea abigar, Esch. Kotzeb. Reise, iii. p. 209, pl. 7. f. 12, *a*, *b* (1821), ♀.

Danais chionippe, Butler, P. Z. S. 1866, p. 171.

Danais cecilia, Bougainville, Voy. Thétis, ii. p. 342, pl. 44. f. 1, ♂ (1837).

Hab. Philippines (Manilla, Luzon).

17. Salatura affinis.

Papilio affinis, Fabricius, Syst. Ent. p. 511 (1775); Ent. Syst. iii. 1, p. 58 (1793); Donovan, Ins. of Ind. pl. 25. f. 2.

Danais affinis, Godart, Enc. Méth. ix. p. 182; Blanchard, Voy. Pôle Sud, p. 389, pl. 2. f. 7; Butler, Catal. Lep. Fabr. B. M. p. 6.

Hab. Ceram; Amboyna; Cape York, N. Australia.

18. Salatura aruana, n. sp.

Allied to *S. affinis*. Male and female of a uniform ferruginous brown; fore wing with similar markings, the white spots smaller, the discal interspaces dull white and much restricted, the upper space confined to a very small triangular streak above base of lower median, and the lower space mostly suffused with brown; on the hind wing the dull white area is transversely much narrower and is broadly traversed by brown veins.

Expanse, ♂ 1¾, ♀ 2 inches.

Hab. Aru (*Wallace*). In colls. F. Moore and British Museum.

19. Salatura nigrita, n. sp.

Male. Smaller than *S. affinis* from Ceram and Cape York. Blacker in colour, and the markings of a duller white tint. On the fore wing the white subapical spots are more regular in succession, the penultimate lower spot square, the white interspaces below the cell somewhat narrower; hind wing with the medial white area narrower.

Expanse 2¼ inches.

Hab. Australia. In coll. British Museum.

20. Salatura ferruginea.

Danais ferruginea, Butler, Ann. Nat. Hist. ser. 4, vol. xviii. p. 240 (1876).

Hab. N. Guinea.

21. Salatura mytilene.

Danais mytilene, Felder, Wien. ent. Monats. iv. p. 232 (1860).
Danais pullata, Butler, Proc. Zool. Soc. 1866, p. 47, f. 1, ♂.

Hab. New Guinea (Dorey).

21 *a*. Salatura adustus.

Danais adustus, Godman & Salvin, P. Z. S. 1882, p. 755.

Hab. New Ireland.

22. Salatura insolata.

Danais insolata, Butler, Ann. Nat. Hist. ser. 4, vol. v. p. 360 (1870); Brenchley's Voy. Curaçoa, p. 468, pl. 48. f. 1.

Hab. Solomon Islands.

23. Salatura decipiens.

Salatura decipiens, Butler, Ann. Nat. Hist. ser. 5, vol. x. p. 37 (1882).

Hab. Solomon Islands.

24. Salatura biseriata.

Salatura biseriata, Butler, Ann. Nat. Hist. ser. 5, vol. x. p. 37 (1882).

Hab. Duke-of-York Island.

C. *Two "sexual marks" or scent-producing organs on hind wing.*

a. Sexual mark on both the median and submedian veins.

Ravadeba, n. g.

Danais (*Parantica*), sect. A, part., Marshall & de Nicéville, Butt. of India &c. p. 35 (1882).

Male with a shorter and broader fore wing than in *Bahora*, the apex being more blunt and the exterior margin less oblique; discocellulars convexly angular in the middle, emitting a very short point within the cell; lower radial from below the angle: hind wing more regularly quadrate, the costa being shorter, the exterior margin angularly produced in the middle, and the anal angle more prominent; scent-pouches similar.

Type *R. cleona*.

1. Ravadeba cleona.

Papilio cleona, Cramer, Pap. Exot. iv. pl. 377. fig. F (1781).
Danais cleona, Blanchard, Voy. Pôle Sud, p. 386, pl. 2. f. 3 (1853).
Danais (*Parantica*) *cleona*, Marshall & de Nicéville, Butt. of India &c. p. 36 (1882).

Hab. Celebes.

2. Ravadeba lutescens.

Danais lutescens, Butler, Proc. Zool. Soc. 1866, p. 172, fig. 3, ♀.

Hab. Ceram; Bouru; Batchian.

3. Ravadeba phyle.

Danais phyle, Felder, Wien. ent. Monats. 1863, p. 105; Novara-Reise, Lep. ii. p. 348, pl. 42. fig. 8, ♂.

Hab. Philippines (Luzon, 4000 to 5000 feet).

Bahora, n. g.

Danais (*Parantica*, Sect. A, part.), Marshall & de Nicéville, Butt. of India &c. p. 35.

Male with a comparatively narrower fore wing than in *Parantica*; fore wing with the subcostal emitted at one fifth before end of the cell, first branch free; discocellulars bent below the upper radial, producing a short spur within the cell from the angle; lower discocellular slender at its upper end: hind wing more arched near base of the costa, the exterior margin more oblique below the apex and convexly angular beyond the middle; abdominal margin also longer; pouches similar. Female with more rounded exterior margins.

Type *B. philomela.*

1. Bahora aspasia.

Papilio aspasia, Fabricius, Maut. Ins. ii. p. 15 (1787); Ent. Syst. iii. p. 170.

Danais aspasia, Butler, Catal. Fabr. Lep. B. M. p. 7.

Hab. Borneo.

2. Bahora philomela.

Euplœa philomela, Zink.-Som. Nova Acta Acad. Nat. Cur. xv. p. 184, pl. 16. fig. 17 (1831).

Euplœa philomela, Butler, P. Z. S. 1866, p. 456.

Danais (*Parantica*) *philomela*, Marshall & de Nicéville, Butt. of India &c. p. 36.

Hab. Java; ? Billiton.

3. Bahora crocea.

Danais crocea, Butler, Proc. Zool. Soc. 1866, p. 57, pl. iv. fig. 5.

Danais aspasia, var. *crocea*, Distant, Rhopalocera Malayana, p. 13, pl. 1. fig. 7 (1882).

Danais (*Parantica*) *crocea*, Marshall & de Nicéville, Butt. of India &c. p. 37 (1882), pl. 5. f. 6, ♂.

Hab. British Burmah, Kyouk Phyoo; Mergui (*Anderson*); Malay peninsula; Province Wellesley; Penang (*Distant*); Malacca; Singapore (*Wallace*); Sumatra (*Buxton*).

Phirdana, n. g.

Fore wing very short, broad, triangular, apex convex, exterior margin oblique, cell comparatively long and broad at the end; dis-

cocellulars bent below the upper radial, producing a short spur within the cell from the angle; lower discocellular slender at its upper end. Hind wing short, broad, oval; cell long; costal vein much arched at the base, first subcostal branch and lower median branch emitted opposite to one another before half length of the cell, both being comparatively longer than in *Parantica*. Male with two spatula-shaped scent-pouches, a large one on lower median vein and a small one on submedian vein. Antennæ stout, with a well-formed thick club. Palpi small, pointed at tip.

PHIRDANA PUMILA.

Danais pumila, Boisd. Bull. Ent. Soc. France, 1859, p. 156.

Danais mariana, Butler, Ann. Nat. Hist. ser. 3, vol. xvi. p. 397 (1865); Proc. Zool. Soc. 1866, p. 58, pl. 4. fig. 6.

Hab. New Caledonia (Loyalty Island).

PHIRDANA HEBRIDESIA.

Danais hebridesia, Butler, P. Z. S. 1875, p. 610, pl. 67. f. 6, ♀.

Hab. New Hebrides (Aneiteum).

ASTHIPA, n. g.

Fore wing somewhat short, apex broad and very convex, exterior margin slightly oblique; first subcostal branch emitted at one fourth before end of the cell, free; second branch at a short distance before its end, recurved; discocellulars bent below the upper radial, producing a very short point within the cell from the angle, lower discocellular slender at its upper end; upper radial from near subcostal, lower from above the middle angle. Hind wing broad, convex externally, costal margin slightly curved, cell narrowed at both ends. Male with a long spatula-shaped scent-pouch on lower median vein and a small (? rudimentary) pouch near inner side of submedian vein. Antennæ with a long slender tip. Palpi small, tip pointed.

Type *A. vitrina*.

1. ASTHIPA MELANOLEUCA

Danais melanoleuca, Moore, Proc. Zool. Soc. 1877, p. 581, pl. 58. f. 3.

Danais (*Parantica*) *melanoleuca*, Marshall & de Nicéville, Butt. of India &c. p. 38 (1882).

Hab. South Andaman Isles.

2. ASTHIPA VITRINA.

Danais vitrina, Felder, Wien. ent. Monats. v. p. 300 (1861), ♂; Reise der Novara, Lep. ii. p. 530, pl. 43. f. 3, 4.

Danais œnone, Butler, Proc. Zool. Soc. 1865, p. 433, pl. 25. f. 6, 1866, p. 56, ♂.

Hab. Philippine Islands.

3. Asthipa gloriola.

Danais gloriola, Butler, Proc. Zool. Soc. 1866, p. 56, pl. 4. f. 3, 4.

Danais citrina, Felder, Reise d. Nov. Lep. ii. p. 350, pl. 42. f. 5, 6, 7 (1867).

Hab. Aru Islands.

4. Asthipa schenkii.

Danais schenkii, Koch, Indo-Austr. Lep. Fauna, p. 107 (1865).

Hab. Solomon Islands.

Genus Parantica.

Parantica, Moore, Lep. of Ceylon, i. p. 7 (1880).

Danais (*Parantica*, sect. B), Marshall & de Nicéville, Butt. of India &c. p. 35.

Fore wing long, narrow, hind margin lengthened; first subcostal branch emitted at one fourth before end of the cell and touching the costal near its end, second branch from immediately before end of the cell; upper discocellular bent below the lower radial, producing a short discoidal spur within the cell from the angle, lower discocellular slender at its upper end; cell long and narrow. Hind wing somewhat elongated, exterior margin very convex, abdominal margin short, costal vein arched from the base and extending along edge of the costa; cell very long and narrow. Male with two spatula-shaped scent-pouches, one (the largest) being on the lower median vein, the other (about one fourth its size) on the submedian vein, near their ends, from which innumerable short white filaments project between the scales, each pouch showing on the underside by a slender swelling of the veins at that part. Antennæ with lengthened slender tip. Apical joint of the palpi short, small, pilose. Larva with two pairs of fleshy filaments.

Type *P. aglea*.

1. Parantica melanoides.

Danais aglea (part.), auctorum.

Danais (*Parantica*) *aglea*, Marshall & de Nicéville, Butt. of India &c. p. 38, pl. 6. fig. 7, ♂ ♀ (1882).

Larger than typical *P. aglea*; the markings broader and larger, and like those in *Caduga melaneus*: on the fore wing the discoidal streak broadly occupies the cell, and that beneath the cell has a central longitudinal line, not being divided as in *P. aglea*.

Expanse $3\frac{1}{2}$ inches.

Hab. Himalayas, Mussoorie (*Hutton*); Cashmere (*Reid*); Nepal (*Ramsay*); Darjeeling; Cherra (*Atkinson*); Assam; Upper Tenasserim; Siam; Hainan Island; ? Formosa.

Tenasserim and Hainan specimens (males) are alike somewhat smaller than those from the Himalayas.

2. Parantica aglea.

Papilio aglea, Cramer, Pap. Exot. iv. pl. 377. fig. E (1782).

Danaida aglea, Aurivillius, Kongl. Vet.-Akad. Handl. 1882, p. 99.

Danais ceylanica, Felder, Verh. zool.-bot. Gesellsch. xii. p. 479 (1862).

Parantica ceylonica, Moore, Lep. of Ceylon, i. p. 8, pl. 2. f. 2, 2*a*.

Danais (*Parantica*) *ceylanica* et *grammica*, Marshall & de Nicéville, Butt. of India &c. pp. 39, 40 (1882).

Papilio similis (part.), Linn. Mus. Ulr. p. 299.

Hab. Southern India (Bombay, Malabar, Travancore, Bangolore); Ceylon.

Cramer cites Java and Coromandel as the localities of his *P. aglea*, but figures the male of the S. Indian form. The Javan form is *P. grammica*, Bd.

3. Parantica grammica.

Danais grammica, Boisduval, Spec. Gén. Lép. i. pl. xi. fig. 10, ♂ (1836).

Hab. Java. In coll. F. Moore.

4. Parantica agleoides.

Danais agleoides, Felder, Wien. ent. Monats. iv. p. 398 (1860); zool.-bot. Gesellsch. 1862, p. 486; Wood-Mason, Journ. Asiatic Soc. Bengal, 1881, p. 224; Distant, Rhop. Malayana, p. 15, pl. 1. fig. 5 (1882).

Danais (*Parantica*) *agleoides*, Marshall & de Nicéville, Butt. of India &c. p. 41.

Danais grammica, Doubleday, Diurnal Lep. p. 92; Moore, Catal. Lep. Mus. E.I. C. i. p. 122; Butler, P. Z. S. 1866, p. 55.

Hab. British Burmah (Rangoon, Mergui); Malay peninsula; Nicobars; Java (*Horsf.*); Sumatra.

5. Parantica eryx.

Papilio eryx, Fabricius, Ent. Syst. Supp. p. 423 (1789).

Danais eryx, Butler, Catal. Fabrician Lep. B. M. p. 7, pl. 1. f. 2 (1870).

Hab. Borneo.

Mangalisa, n. g.

Fore wing triangular, costa much arched towards apex; upper discocellular bent below the lower radial and emitting a short spur within the cell from the angle. Hind wing oval; male with one scent-pouch on submedian vein, composed of the dilated or swollen vein and adjacent spatula-shaped patch, also a half spatular patch between it and the lower median vein, but no swelling of the vein or corresponding half of the patch on its other side. Venation similar to *Caduga*. Antennæ with a gradually thickened blunt club. Palpi large; apical joint very long, pointed, pilose.

MANGALISA ALBATA.

Euplœa albata, Zinken-Sommer, Nova Acta Acad. Curios. 1831, p. 181, pl. 16. f. 16.

Hab. Java.

Sexual mark on submedian and internal veins.

CADUGA, n. g.

Danais (*Chittira*, sect. A, part.), Marshall & de Nicéville, Butt. of India &c. p. 42 (1882).

Fore wing elongated, narrow, more regularly triangular; first subcostal branch emitted at one fourth before end of the cell, free; second branch from end of the cell; cell long and narrow; upper discocellular bent below lower radial, producing a short spur from the angle within the cell; lower discocellular slender at its upper end. Hind wing elongated, abdominal margin short, costa straight; costal vein long, slightly curved and extending along the margin; cell long and narrow. Male with two spatula-shaped pouch-marks, one, the largest, being on the submedian vein, the other on the internal vein, near the end; these pouch-marks are formed by a lengthened but slight dilatation or swelling of the veins, the adjacent spatula-shaped surface being composed of very compactly disposed scales of a different shape and form, (? between) which project innumerable delicate short white filaments; a similar patch of scales is also observable on the lower median vein, but it is not accompanied by the swollen vein. Antennæ with a regularly formed clavate tip. Apical joint of palpi large, stout, pointed.

Type *C. tytia*, Gray.

1. CADUGA TYTIA.

Euplœa tytia, Gray, Lep. Ins. of Nepal, p. 9, pl. 9. fig. 2 (1833).

Danais tytia, Doubleday, List. Lep. Brit. Mus. i. p. 50 (1844); Doubleday & Hewitson, Diurn. Lep. pl. 12. fig. 4.

Danais (*Chittira*) *tytia*, Marshall & de Nicéville, Butt. of India &c. p. 42 (1882).

Danais sita, Kollar, Hügel's Kaschmir, iv. p. 424, pl. 6 (1844).

Hab. N.W. and E. Himalayas (Cashmir to Sikkim); Khasia hills; Tenasserim.

2. CADUGA NIPHONICA, n. sp.

Differs from typical *C. tytia* in its larger size: fore wing very black, with broader subapical streaks; comparatively smaller and more ovate upper discal spots; the lower discal outer spot also smaller, the latter being more transversely narrow and less quadrate in shape; the submarginal row of spots are larger, and the marginal row more distinct: hind wing in male with all the veins and their borders blackish, the spatular glandular patch and streaks therefrom very black; no red bifid streak within the cell, which is replaced by

a very indistinct slender grey line; the marginal spots are more or less obsolete.

Expanse, ♂ $4\frac{1}{4}$, ♀ $3\frac{3}{4}$ inches.

Hab. Japan (*Nikko*). In coll. British Museum.

A specimen of a female in my own collection, from North Formosa, agrees very nearly with the species from Japan. Mr. W. B. Pryer collected specimens of what may probably be this species in Chekiang, North China.

3. Caduga loochooana, n. sp.

Female. Duller-coloured than Japanese or Formosan specimens: fore wing pale brown; the subapical spots shorter, the discal spots regularly quadrate in shape, the submarginal series being disposed in a more regular linear row and transversely narrower: hind wing paler, but of a brighter red; the cell cleft by a distinct straight red streak starting directly from the discocellular veinlet.

Expanse, ♀ $3\frac{4}{5}$ inches.

Hab. Loo Choo Islands. In coll. British Museum.

4. Caduga swinhoei, n. sp.

Differs from *C. melaneus* in its shorter and comparatively more regularly triangular fore wing and shorter hind wing, the markings being of a decidedly darker tint of blue; they are similar on both wings, but smaller, narrower, and with broader black interspaces; on the underside the hind wing is of a chestnut-red colour.

Expanse $3\frac{1}{2}$ inches.

Hab. North Formosa (*R. Swinhoe*). In coll. F. Moore.

5. Caduga melaneus.

Papilio melaneus, Cramer, Pap. Exot. i. pl. 30. f. D (1775).

Danais melaneus, Godart, Enc. Méth. ix. p. 192.

Danais melaneus (part.), Distant, Rhop. Malayana, p. 14.

Euplœa melanea, Zinken-Sommer, Nova Acta Acad. Cur. Nat. 1831, p. 179.

Danais (*Chittira*) *melaneus,* Marshall and de Nicéville, Butt. of India &c. p. 43, pl. 5. f. 5, ♂ ♀.

Hestia ephyre, Hübner, Verz. bek. Schmett. p. 15 (1816).

Hab. Eastern Himalayas; Nepal (*Ramsay*); Darjiling (*Atkinson*); Sylhet; Khasia hills; British Burmah; Malay peninsula; Penang; Singapore.

6. Caduga pseudomelaneus, n. sp.

Differs from Malay specimens of *C. melaneus* in the fore wing having the upper elongated discal streak shorter, the upper discal spot larger, the two middle spots also larger, the two lowest more quadrate, the outer spot being excavated on its exterior edge, and the posterior streak below the cell shorter and traversed by a slender black streak: hind wing with the inner discal series of spots smaller, leaving a wider discal interspace between them and the marginal

row, which are also smaller; the cell is also traversed by a black bifid line.

Expanse $3\frac{1}{4}$ inches.

Hab. Java. In coll. H. G. Smith.

An intermediate form between *C. melaneus* and *C. larissa*.

7. Caduga larissa.

Danais larissa, Felder, Novara-Reise, Lep. ii. p. 349 (1867).

Hab. Java (*Horsfield*). In colls. British Museum and F. Moore.

8. Caduga banksii, n. sp.

Danais melaneus, Distant, Rhop. Malayana, pl. 1. f. 6?

Much larger than the Javan *C. larissa*: all the markings comparatively narrower, thus giving wider interspaces; on the fore wing the subapical streaks are one third longer; on the hind wing the streaks are conspicuously narrower, and the discoidal streak has a well-formed forked central line.

Expanse, ♂ $3\frac{1}{2}$, ♀ $3\frac{3}{4}$ inches.

Hab. Sumatra. In colls. F. Moore and H. S. Smith.

A faded specimen of this species is in the Banksian collection at the British Museum. Has also been collected in Sumatra by Mr. Carl Bock.

9. Caduga luzonensis.

Danais luzonensis, Felder, Wien. ent. Monats. 1863, p. 106.

Danais erebus, Butler, Proc. Zool. Soc. 1866, p. 54, f. 3.

Hab. Philippines (Luzon, Bohol, Mindanao).

10. Caduga nilgiriensis.

Danais nilgiriensis, Moore, Ann. Nat. Hist. ser. 4, vol. xx. p. 44 (1877).

Danais (*Chittira*) *nilgiriensis*, Marshall and Nicéville, Butt. of India &c. p. 43, pl. 6. f. 9 ♂ (1882).

Hab. Southern India (Nilgiri hills).

Genus Chittira, Moore.

Chittira, Moore, Lep. of Ceylon, i. p. 8 (1880).

Danais (*Chittira*), sect. B. part., Marshall and de Nicéville, Butt. of India &c. p. 42 (1882).

Fore wing somewhat short and broad; costa much arched; hind margin long; discocellulars bent in the middle below the lower radial, and producing a short spur within the cell from the angle; hind wing broadly oval, very convex exteriorly. *Male* with two scent-pouches, one on the submedian vein composed of the dilated or swollen vein and spatula-shaped adjacent patch, the other on the internal vein, which is there dilated but without any adjacent patch. Venation similar to *Caduga*. Antennæ with a tolerably thick club. Palpi large; third joint pointed, pilose.

CHITTIRA FUMATA.

Danais fumata, Butler, Proc. Zool. Soc. 1866, p. 53.

Chittira fumata, Moore, Lep. of Ceylon, i. p. 9, pl. 4. f. 1.

Danais taprobana, Felder, Reise d. Novara, Lep. ii. p. 349, pl. 42. f. 4 (1867).

Danais (*Chittira*) *taprobana*, Marshall and de Nicéville, Butt. of India &c. p. 44 (1882).

Hab. Ceylon.

May 1, 1883.

Prof. Flower, LL.D., F.R.S., President, in the Chair.

The Secretary read an extract from a letter addressed to him by Mr. W. L. Crowther, C.M.Z.S., dated Hobart Town, February 23, 1883.

In reply to inquiries addressed to him as to the possibility of obtaining living specimens of the Thylacine (*Thylacinus cynocephalus*), Mr. Crowther stated that the animal was certainly not yet extinct. The hawkers from the interior of the colony frequently offered its skins for sale in Hobart Town, thus showing that the skin-men with whom they deal were acquainted with the localities where they are still found. Mr. Crowther promised to use his best endeavours to obtain specimens for the Society.

The Secretary exhibited on behalf of Mr. H. Whitely the skin of a rare Bird of Paradise (*Rhipidornis gulielmi-tertii*). This specimen had been received in a collection which had been made in the island of Waigiou. So far as was known, this was only the fourth example of this species which had ever been obtained. The type specimen from which the figure in Gould's 'Birds of New Guinea' had been taken was in the Museum of Warsaw.

In reference to Dr. Meyer's communication (P. Z. S. 1882, p. 688) on the desirability of adopting a standard of nomenclature for the description of the colours of natural objects, and Mr. Harting's previous communication on the same subject (P. Z. S. 1882, p. 391), the Secretary laid upon the table a copy of Radde's 'Internationale Farbenskala,' which had been recently added to the Society's Library, and explained the way in which it was intended to be used.

The following papers were read :—

1. A Monograph of *Limnaina* and *Euplœina*, two Groups of Diurnal Lepidoptera belonging to the Subfamily Euplœinæ; with Descriptions of new Genera and Species. By F. Moore, F.Z.S., A.L.S., &c.

Part II. *Euplœina*.

(Plates XXIX.–XXXII.)

Group Euplœina.

Males, in most genera, possessed with either one or two glandular streaks or scent-producing organs on the fore wing, or with such an organ absent or present on the fore wing, and also a glandular patch on the costal border of the hind wing. No precostal cell on hind wing. Abdomen furnished with odoriferous anal tufts. Larva smooth, with four pairs of subdorsal long slender fleshy processes.

A. *No "sexual mark" or scent-producing organ on fore wing* (see Table, pp. 254, 255).

Genus Hamadryas.

Hamadryas[1], Boisduval, Voy. Astrolabe, Lép. p. 91 (1832); Doubleday & Hewits. D. Lep. p. 134.

Aeria (part.), Hübner, Verz. bek. Schmett. p. 9.

Wings small: fore wing elongated; costa much arched, apex convex; exterior margin short, slightly oblique and convex; posterior margin long, recurved; cell long, extending two thirds the wing; first subcostal at one third before end of the cell, second from near the end, third trifid; upper discocellular bent inward close to the subcostal, and outward before the middle, emitting a short spur within the cell from lower angle, lower discocellular curved obliquely outward; upper radial from angle near subcostal, lower from below the angle of the discocellulars; upper median at one fifth, lower at before end of the cell; submedian much recurved, with a short slender veinlet emitted from below near the base. Hind wing very short, oval; costa slightly arched at base; first subcostal at one seventh before end of the cell; upper discocellular shortest, outwardly curved, lower outwardly recurved, radial from their angle; upper median at one fourth, lower at one half before end of the cell; cell broad, lengthened triangular; submedian and internal veins recurved. Legs very long, slender, fore tarsi of female tumid and acutely spined at apex; palpi ascending, laxly scaly; antennæ long, gradually thickening to a lengthened club.

Type *H. zoilus*.

[1] Previously used by Hübner (Tentamen, i., 1806).

Key to the Genera of Euplœina.

	Sexual mark or scent-producing organ	Exterior margin of fore wing	Posterior margin of fore wing	Upper discocellular vein	Lower discocellular vein	Discoidal veinlet in fore wing	Typical genera and species.
A.	*No "sexual mark" or scent-producing organ on fore wing.*						
	none.	convex.	recurved.	bent.	perfect.	from upper discocellular.	Hamadryas zoilus.
	ditto.	straight.	straight.	ditto.	ditto.	ditto.	Vonona goudotii.
	ditto.	uneven.	ditto.	ditto.	ditto.	ditto.	Nipara helcita.
	ditto.	ditto.	very convex.	ditto.	ditto.	ditto.	Oranasma lugens.
	ditto.	even.	slightly convex.	ditto.	ditto.	ditto.	Patosa funerea.
	ditto.	ditto.	straight.	ditto.	ditto.	ditto.	Sarobia grayi.
	ditto.	convex.	nearly straight.	ditto.	ditto.	ditto.	Vadebra climene.
	ditto.	ditto.	straight.	ditto.	ditto.	ditto.	Lontara wallacei.
	ditto.	uneven.	very convex.	ditto.	ditto.	ditto.	Gamatoba occulta.
	ditto.	even.	ditto.	ditto.	ditto.	ditto.	Menama camaralzeman.
	ditto.	uneven.	ditto.	ditto.	ditto.	ditto.	Tronga crameri.
	ditto.	ditto.	slightly convex.	straight.	ditto.	from middle of discocellulars.	Sabanosa cratis.
	ditto.	ditto.	very convex.	bent.	ditto.	from upper discocellular.	Adigama ochsenheimeri.
B.	*One "sexual mark" or scent-producing organ on fore wing.*						
	one on fore wing, short, slender.	uneven.	very convex.	bent.	perfect.	from upper discocellular.	Chanapa corinna.
	ditto.	ditto.	convex.	ditto.	ditto.	ditto.	Mahintha subdita.
	ditto.	ditto.	almost straight.	ditto.	ditto.	ditto.	Crastia core.
	short.	even.	slightly convex.	ditto.	ditto.	ditto.	Deragena proserpina.
	short, broad.	slightly convex.	ditto.	ditto.	ditto.	ditto.	Chirosa brenchleyi.
	long, slender.	uneven.	ditto.	ditto.	ditto.	ditto.	Pramesta tobleri.
	ditto.	ditto.	broadly convex.	ditto.	ditto.	ditto.	Karadira andamanensis.
	long, broad.	slightly concave.	slightly convex.	ditto.	ditto.	ditto.	Andasena swainsonii.
	ditto.	slightly convex.	convex.	ditto.	ditto.	ditto.	Bibisana horsfieldii.
	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	Betanga megæra.
	ditto.	convex.	very convex.	ditto.	ditto.	ditto.	Pramasa mitra.
	ditto.	ditto.	ditto.	ditto.	ditto.	ditto.	Rasuma violetta.
	ditto.	uneven.	convex.	ditto.	ditto.	ditto.	Tagata objecta.
	long, very broad.	convex.	ditto.	ditto.	ditto.	ditto.	Penoa alcathoe.
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Mestapura fraudu-

No "sexual mark" on fore wing. Hind wing with a glandular patch.

Glandular patch on hind wing	Ext. margin of fore wing	Post. margin of fore wing	Upper discocellular vein	Lower discocellular vein	Discoidal veinlet in fore wing	Typical genera and species.
small.	slightly convex.	convex.	bent.	perfect.	from upper discocellular.	Glinama euctemon.
ditto.	uneven.	slightly convex.	ditto.	ditto.	ditto.	Trepsichrois linnæi.
moderate.	convex.	convex.	concave.	ditto, concave.	none.	Calliplœa darchia.
large.	ditto.	very convex.	ditto.	ditto.	none.	Euplœa corus.

D. *One "sexual mark" on fore wing. Hind wing with a glandular patch.*

Sexual mark on fore wing	Glandular patch on hind wing	Ext. margin of fore wing	Post. margin of fore wing	Discocellular veins	Discoidal veinlet in fore wing	Typical genera and species.
small.	large.	oblique.	slightly convex.	concave, perfect.	none.	Satenga eupator.
short.	small.	ditto.	ditto.	ditto.	none.	Tabada hyacintha.
short, broad.	ditto.	convex.	ditto.	ditto.	none.	Danisepa rhadamanthus.
ditto.	large.	ditto.	ditto.	ditto.	none.	Selinda mniszechi.
short, oval.	ditto.	ditto.	very convex.	ditto.	none.	Hirdapa usipetes.
short.	ditto.	ditto.	ditto.	ditto.	none.	Salpinx nemertes.
ditto.	ditto.	oblique.	convex.	ditto.	none.	Pademma klugii.
small.	ditto.	ditto.	convex at base.	upper bent; perfect.	from upper discocellular.	Saphara treitschkei.
long.	ditto.	ditto.	convex.	ditto.	ditto, short.	Isamia superba.
slender.	ditto.	ditto.	ditto.	ditto.	ditto.	Nacamsa simillima.
slender, slightly defined.	ditto.	ditto.	ditto.	ditto.	ditto, long.	Tiruna roepstorffii.
short, broad.	small.	ditto.	very convex.	ditto.	ditto.	Anadara gamelia.

E. *Two "sexual marks" or scent-producing organs on fore wing.*

Sexual marks on fore wing	Ext. margin of fore wing	Post. margin of fore wing	Discocellular veins of fore wing	Discoidal veinlet of fore wing	Typical genera and species.
long.	oblique.	short.	bent in middle.	from middle of discocellulars.	Doricha sylvester.
ditto.	ditto.	slightly convex.	upper bent.	from upper discocellular.	Narmada coreoides.
long, broad.	convex.	convex.	ditto.	ditto.	Stictoplœa gloriosa.

Note. Certain species of *Hamadryas* are mimicked in New Zealand, Australia, and in the Malay islands by species of the genus *Neptis*; and it is a curious fact that *Neptis* (*Phædyma*) *shepherdi*, an Australian species, with *N. cerne*, *N. heliodora*, and *N. latifasciata*, approach considerably in form and pattern of markings to the South-American Heliconid *Tithorea bonplandii*. This resemblance of the Australian *Neptis* to *Tithorea* has suggested to me that we may expect to find in this region a nearer connecting form between the Euplœina and Heliconids than *Hamadryas*.

Hamadryas is apparently an isolated genus, having, so far as I know, no eastern very closely allied forms. It has great resemblance to some forms of South-American Ithomias (genus *Leucothyris*, &c.).

1. Hamadryas zoilus.

Papilio zoilus, Fabricius, Syst. Ent. p. 480 (1775); Mant. Ins. p. 25; Ent. Syst. iii. p. 42.

Hamadryas zoilus, Boisd. Voy. Astrolabe, Lép. p. 91; Doubleday & Hewits. D. Lep. pl. 18*. f. 1; Butler, Catal. Fabrician Lep. B. M. p. 128; Semper, Mus. Godeffroy, xiv. Lep. p. 143.

Hab. Cape York; Barnard Isle, Australia; New Zealand.

2. Hamadryas nais.

Nymphalis nais, Guérin, Voy. Coquille, pl. 15. f. 3 (1829).

Hab. Aru Islands.

3. Hamadryas nedusia.

Stalachtis nedusia, Hübner, Zutr. Exot. Schmett. fig. 799–800 (1832).

Hab. Dorey, New Guinea.

4. Hamadryas assarica.

Papilio assarica, Cramer, Pap. Exot. iv. pl. 363. f. A, B (1781).
Aeria asarica, Hübner, Verz. bek. Schmett. p. 10.
Heliconia assarica, Godart, Enc. Méth. ix. Suppl. p. 816.

Hab. N. Ceram; Amboina.

5. Hamadryas æquicincta.

Hamadryas æquicinctus, Salvin & Godman, Proc. Zool. Soc. 1877, p. 142.

Hab. Duke-of-York Island.

6. Hamadryas moorei.

Hamadryas moorei, Macleay, Proc. Ent. Soc. N. S. Wales, i. p. 53 (1866).

Hab. Cape York, N. Australia.

Vonona, n. g.

Male. Fore wing triangular; costal margin arched, apex very acute; exterior margin oblique, nearly straight; posterior margin straight. Hind wing with somewhat prolonged anterior margin; exterior margin convex; upper discocellular with a short spur or discoidal veinlet emitted within the cell. Larva with four pairs of fleshy filaments.

Type *V. goudotii.*

1. Vonona goudotii.

Euplœa goudotii, Boisduval, Faune Ent. Madagascar, Bourbon et Mauritius, p. 36, pl. 3. f. 2 (1833); Trimen, Rhop. Africæ austr. p. 83; Guénée, Lép. Maillard's Réunion, p. 8 (1867).

Crastia goudotii, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.

Hab. Bourbon (*Boisduval*); Madagascar (*Brit. Mus. coll.*).

The habitat "Zulu, S. Africa," cited by Mr. Trimen in his 'Rhop. Africæ austr.,' on the authority of a specimen from that locality being in the British-Museum collection, is an error. The specimens in that collection are labelled "Madagascar."

2. Vonona euphon.

Papilio euphon, Fabricius, Ent. Syst. Suppl. p. 423 (1798)

Euplœa euphon, Butler, Catal. Fabr. Lep. B. M. p. 3.

Danais euphone, Godart, Enc. Méth. ix. p. 181.

Euplœa euphone, Boisduval, Faune Ent. Madag. Bourb. et Maurit. p. 36, pl. 3. f. 1 (1833); Lucas, Hist. Nat. Anim. Art. iii. p. 434, pl. 9. f. 1.

Stictoplœa euphon, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Hab. Mauritius (*Brit. Mus.*).

3. Vonona desjardinsi.

Danaida (*Euplœa*) *desjardinsii*, Guérin, Icon. Règ. Anim., Ins. texte p. 474 (1844), ♂.

Hab. Rodriguez.

The type specimen of this species is in the "Hewitson" collection at the British Museum. It is similar to *V. euphone*, smaller, and of a uniform cupreous-brown colour, the markings on the fore wing smaller and much less prominent, the band on the hind wing less distinct and narrow, being only half the width, the marginal spots nearly obsolete. Expanse $2\frac{1}{4}$ inches.

Nipara, n. g.

Male. Fore wing triangular, costal margin arched, exterior margin truncated at the apex, angularly excavated in the middle and waved hindward; posterior margin straight; upper discocellular with a short spur emitted within the cell, above the lower radial; submedian with a short slender veinlet emitted from below near the base. Hind wing obovate; exterior margin sinuous.

Type *N. helcita.*

1. NIPARA HELCITA.

Euplœa helcita, Boisduval, Bull. Soc. Ent. France, 1859, p. 156, ♂; Butler, P. Z. S. 1866, p. 453; id. Journ. Linn. Soc., Zool. xiv. p. 299.

Euplœa montrouzieri, Felder, Reise Novara, Lep. ii. p. 345 (1867).

Hab. New Caledonia; Navigators' Islands.

2. NIPARA DISTINCTA.

Euplœa distincta, Butler, Proc. Zool. Soc. 1874, p. 278; id. Journ. Linn. Soc., Zool. xiv. p. 299.

Euplœa eleutho, var., ♀, Herr.-Schäffer, Stett. ent. Zeit. 1869, pl. 2. f. 7, ♂; id. Exot. Schmett. ii. (1869), f. 107, ♂.

Hab. Ellice Islands.

3. NIPARA INTERMEDIA, n. sp.

Male. Intermediate between *N. perryi* and *N. distincta*. Fore wing with similar markings to *N. perryi*, but less distinct, and the discal spot only half the size: hind wing with a submarginal row of large spots, the three upper spots being obconic, the four lower a lengthened oval; a marginal row of very small spots.

Female. Fore wing with larger spots, similar to those in *N. helcita*: hind wing similarly marked to the male, but with six oval spots in the submarginal row.

Expanse, ♂ $2\frac{8}{10}$, ♀ $2\frac{5}{10}$ inches.

Hab. Raratonga Island. In coll. British Museum.

4. NIPARA INDISTINCTA, n. sp

Male. Nearest allied to *N. perryi*. Of a darker brown colour; fore wing with a very indistinct small whitish costal spot, an upper subapical spot, a discal spot, and a submarginal spot below it: hind wing with a submarginal and marginal row of very minute white spots.

Expanse $2\frac{6}{10}$ inches.

Hab. Raratonga Island. In coll. British Museum.

5. NIPARA PERRYI.

Euplœa perryi, Butler, Proc. Zool. Soc. 1874, p. 278, pl. 44. f. 1; id. Journ. Linn. Soc., Zool. xiv. p. 299.

Hab. Nieue or Savage Island.

6. NIPARA ESCHSCHOLTZII.

Euplœa eschscholtzii, Felder, Reise Novara, Lep. ii. p. 345; Butler, Journ. Linn. Soc., Zool. xiv. p. 299; H.-Schäff. Stett. ent. Zeit. 1869, p. 69, pl. 2. f. 9, ♀; id. Exot. Schmett. ii. f. 109, ♀ (1860).

Hab. Fiji Islands.

ORANASMA, n. g.

Differs from *Patosa* in the fore wing being much less triangular, narrower, the exterior margin more oblique and uneven, the posterior margin more convex in the middle; hind wing more triangularly oval.

1. Oranasma lugens.

Euplœa lugens, Butler, Ann. Nat. Hist. ser. 4, xviii. p. 242 (1876).
Crastia lugens, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Hab. New Guinea.

2. Oranasma smithii, n. sp.

Male. Larger than *O. lugens*: fore wing with similar but larger-sized white submarginal spots, the lowest spot being of the same size as the one above it, and a marginal row of small white spots; hind wing with a submarginal row of similar but larger spots, and a marginal row of small spots. Underside marked as above, the fore wing also having a small bluish-white cell-spot and five slender discal spots; hind wing also with a similar cell-spot and discal series of spots.

Expanse $3\frac{3}{8}$ inches.

Hab. New Guinea. In coll. H. G. Smith.

Patosa, n. g.

Wings shorter and broader than in *Vadebra* (*Climena* group): fore wing with straighter costal margin, exterior margin less oblique; posterior angle rounded, and posterior margin slightly convex; cell broader; upper discocellular with a short spur emitted within the cell: hind wing broad; anterior margin straighter, exterior margin and anal angle more convex.

Type *P. funerea*.

1. Patosa funerea.

Crastia funerea, Butler, Journ. Linn. Soc., Zool. xiv. p. 298, ♂ ♀ (1878).
Hab. New Guinea (Port Moresby).

2. Patosa squalida.

Crastia squalida, Butler, Journ. Linn. Soc., Zool. xiv. p. 298 (1878), ♂ ♀.
Hab. New Guinea (Port Moresby).

3. Patosa resarta.

Euplœa resarta, Butler, Ann. Nat. to r. ser. 4, xviii. p. 241 (1876).
Crastia resarta, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Hab. New Guinea (Port Moresby).

4. Patosa batesii.

Euplœa batesii, Felder, Reise Novara, Lep. ii. p. 331 (1867).
Crastia lapeyrousei, Butler, Journ. Linn. Soc., Zool. xiv. p. 299 (nec Boisd.).

Like *V. melina*, Godt. Upperside of the same colour, with the pale marginal fascia on the fore wing distinct, narrower, and not broadly curved at the anterior end; the pale outer margin of the hind

wing narrower and extending more towards base of abdominal margin. Underside of a paler tint, with similar pale margins as above; fore wing with four very small bluish-white discal spots, but no elongated streak: hind wing with six small bluish-white spots.

Expanse $3\frac{2}{12}$ inches.

Hab. Gilolo (*Felder*); Port Moresby, New Guinea (*Brit. Mus.*).

Sarobia, n. g.

Male. Fore wing lengthened triangular; costal margin very convex, apex slightly acuminate; exterior margin oblique, even, short; posterior margin straight. Hind wing triangular; anterior margin long, slightly convex, apex somewhat acuminate; exterior margin obliquely convex, even; abdominal margin short.

Type *S. grayi.*

1. Sarobia grayi.

Euplœa grayi, Felder, Reise Novara, Lep. ii. p. 346 (1867).
Crastia grayi, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.
Hab. Aru Islands.

2. Sarobia confusa.

Euplœa confusa, Butler, Proc. Zool. Soc. 1866, p. 285, f. 3 p. 283.
Crastia confusa, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.
Hab. Island of Waigiou, New Guinea.

Vadebra, n. g.

Crastia (part.), Hübner, Verz. bek. Schmett. p. 16 (1816).
Crastia, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.

Male. With smaller and shorter triangular fore wing; exterior margin oblique, slightly convex, and nearly even; posterior margin almost straight. Upperside without markings.

Type *V. climena.*

1. Vadebra climena.

Papilio climena, Cramer, Pap. Exot. iv. pl. 389. fig. E, F (1782).
Crastia climena, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Crastia limnoria, Hübner, Verz. bek. Schmett. p. 16 (1816).
Danais algea, Godart, Enc. Méth. ix. p. 178 (1819).
Euplœa climena, Semper, Mus. Godeffroy, xiv. p. 142 (1879).
Hab. Amboina, Ceram.

2. Vadebra sepulchralis.

Euplœa sepulchralis, Butler, Proc. Zool. Soc. 1866, p. 282, fig. 2, ♂.
Crastia sepulchralis, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Euplœa servillei, Boisd. MS.
Hab. Java.

3. VADEBRA SIMULATRIX.

Euplœa (Crastia) simulatrix, Wood-Mason, Journ. Asiatic Society Bengal, 1881, p. 229, ♂.

Euplœa simulatrix, Wood-Mason, loc. cit. 1882, p. 15, pl. 3. f. 1, 2, ♂ ♀.

Euplœa (Crastia) simulatrix, Marshall & de Nicéville, Butt. of India, p. 76.

Hab. Great Nicobar.

4. VADEBRA ZINKENII.

Euplœa zinkenii, Felder, Reise Novara, Lep. ii. p. 335 (1867).

Hab. Amboina.

5. VADEBRA MELINA.

Danais melina, Godart, Enc. Méth. ix. p. 179 (1819).

Euplœa melina, Boisduval, Faune de l'Océanie, p. 89; Butler, Proc. Zool. Soc. 1866, p. 282. f. 1, ♂.

Crastia melina, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.

Euplœa paykullii, Boisd. MS.

Euplœa redtenbacheri, Felder, Reise Novara, Lep. ii. p. 330 (1867).

Hab. Aru; Ceram.

6. VADEBRA HONESTA.

Crastia honesta, Butler, Ann. Nat. Hist. ser. 5, x. p. 39, ♀ (1882).

Hab. Solomon Islands.

7. VADEBRA CHAROX.

Euplœa charox, Kirsch, Mitth. Zool. Mus. Dresden, 1877, p. 115.

Hab. New Guinea (Mysore, Kordo). In coll. Godman and Salvin.

8. VADEBRA CORACINA.

Euplœa coracina, Hopffer, Stettin. ent. Zeit. 1874, p. 30.

Male. Upperside uniform violet-brown; without any markings. Underside paler: fore wing with a small white costal spot above end of the cell, three very slender short streaks beyond, near base of subcostals and upper radial, a spot at lower end of the cell, and two on the disk between the medians: hind wing with a small white spot at lower end of the cell, six smaller discal spots beyond, and a partly obsolete submarginal and marginal row of white dots.

Expanse $3\frac{3}{4}$ to 4 inches.

Hab. Celebes. In coll. H. G. Smith.

LONTARA, n. g.

Male and Female. Fore wing long; anterior margin much arched at the base, apex convex; exterior margin slightly oblique and convex, even; posterior margin long, straight. Hind wing prolonged

at the apex, exterior margin even, slightly concave below the apex and convex in the middle; abdominal margin short. Antennæ with a gradually thickened blunt club.

LONTARA WALLACEI.

Euplœa wallacei, Felder, Wien. entom. Monats. iv. p. 231 (1860); Reise Novara, Lep. ii. p. 346, pl. 39. f. 5, 6 (1867).
Crastia wallacei, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.
Euplœa felderi, Boisd. MS., ♂.
Hab. Batchian; Gilolo.

GAMATOBA, n. g.

Wings in male shorter than in typical *Vadebra*; fore wing broader, shorter, apex convex, exterior margin uneven, posterior margin very convex; hind wing shorter and broader.
Type *G. æthiops*.

1. GAMATOBA OCCULTA.

Euplœa occulta, Butler, Proc. Zool. Soc. 1877, p. 467.
Crastia occulta, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.
Hab. New Guinea (Port Moresby).

2. GAMATOBA ÆTHIOPS.

Euplœa æthiops, Butler, Proc. Zool. Soc. 1866, p. 285, ♂.
Crastia æthiops, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.
Hab. Waigiou.

3. GAMATOBA REAUMURI.

Euplœa reaumuri, Oberthür, Ann. Mus. Stor. Nat. Genova, xii. p. 457 (1878).
Hab. Dorey. In coll. C. Oberthür and British Museum.

4. GAMATOBA LATREILLEI.

Euplœa latreillei, Kirsch, Mitth. kön. zool. Mus. Dresden, 1877, p. 115, ♂.
Hab. New Guinea (Dorey). In coll. C. Oberthür.

5. GAMATOBA ALECTO.

Euplœa alecto, Butler, Proc. Zool. Soc. 1866, p. 275, ♂.
Crastia alecto, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Hab. Ceram.

6. GAMATOBA MONILIFERA, n. sp.

Female. Ochreous violet-brown, darkest basally: fore wing with a submarginal row of eight ochreous-white spots curving outward from the costa, the fourth and fifth the largest, a marginal row of very small spots: hind wing with a submarginal row of distinct ochreous-white spots placed in a somewhat regular linear series from the anal angle, where they are oval; the others being rounded and the upper

one minute; a marginal row of smaller spots. Underside paler; both rows of spots the same as above; fore wing also with a minute spot above end of the cell, one at lower end of the cell, and two beyond the end, and a long pale violaceous-white spot below the median: hind wing also with a small spot at lower end of the cell and a series of five spots beyond.

Expanse, ♀ $3\frac{3}{8}$ inches.

Hab. Thursday Island. In coll. British Museum.

7. Gamatoba diadema, n. sp.

Male. Dark purplish violet-brown, anal area of hind wing paler: fore wing with a curved subapical series of four small indistinct whitish-brown spots: hind wing with two marginal rows of more distinct small brownish-white spots. Underside—fore wing with the four subapical spots distinct and white, and three lower marginal dots, one also on the disk: hind wing with a minute white spot at lower end of the cell, and four on the disk beyond; marginal rows more distinct than above.

Female. Paler, and of a more ochreous violet-brown tint: fore wing with four distinct creamy-white upper submarginal spots, a small spot on the costa, one between upper and middle median veins, and a marginal row of minute spots: hind wing with a marginal and submarginal row of large distinct creamy-white spots.

Expanse, ♂ 3, ♀ $3\frac{1}{4}$ inches.

Hab. Port Moresby, New Guinea. In coll. G. Semper and H. G. Smith.

8. Gamatoba nox.

Euplœa nox, Butler, Proc. Zool. Soc. 1866, p. 278, ♂.
Crastia nox, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Hab. Aru Islands.

9. Gamatoba melancholica.

Euplœa melancholica, Butler, Proc. Zool. Soc. 1866, p. 280, ♂.
Crastia melancholica, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Euplœa harrisii, Boisd. MS., ♂.
Hab. Amboina. In coll. Godman and Salvin, and British Museum.

10. Gamatoba cerberus.

Crastia cerberus, Butler, Ann. Nat. Hist. ser. 5, x. p. 40, ♂ ♀ (1882).
Hab. New Britain; New Ireland.

11. Gamatoba spiculifera, n. sp.

Male. Dark violet-brown: fore wings with a small greyish-white speckled spot at lower end of the cell, a minute costal spot above end of the cell, three small discal spots, and a submarginal upper row of six small dentate bluish-white spots. Underside paler: fore wing marked as above, the spots being more distinct; a short streak also between median and submedian; hind wing with a minute white dot at end of the cell, a slender streak below subcostal

and two between the medians, also a submarginal row of three very minute dots.

Female. Paler; fore wing with similar but slightly larger-sized spots; hind wing with two or three indistinct whitish upper submarginal dots.

Expanse, ♂ $4\frac{1}{8}$, ♀ $4\frac{2}{8}$ inches.

Hab. Bouru (*Wallace*). In coll. H. G. Smith, and Hewitson (British Museum).

12. Gamatoba ebenina.

Euplœa ebenina, Butler, Proc. Zool. Soc. 1866, p. 301, ♂.
Crastia ebenina, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Euplœa edwardsii, Boisd. MS.

Hab. Aru Islands.

Menama, n. g.

Euplœa (*Crastia*, sect. B), Marshall and de Nicéville, Butt. of India, p. 76 (1882).

Male. Fore wing very long, broad; costal margin slightly arched at base, apex somewhat acuminate; exterior margin very oblique, short; posterior margin very convex in middle; upper discocellular bent very obliquely inward and angled at its lower end, and emitting a short discoidal veinlet from the angle, lower bent obliquely outward: hind wing broad; exterior margin obliquely convex.

Female. Fore wing slightly convex below the apex; posterior margin straight.

Type *M. camaralzeman.*

1. Menama camaralzeman.

Euplœa camaralzeman, Butler, Proc. Zool. Soc. 1866, p. 271, pl. 29. f. 1, ♂.
Crastia camaralzeman, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Euplœa (*Crastia*) *camaralzeman*, Marshall and de Nicéville, Butt. of India, p. 77 (1882).

Hab. Siam.

2. Menama modesta.

Euplœa modesta, Butler, Proc. Zool. Soc. 1866, p. 273, ♂.
Crastia modesta, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.
Euplœa (*Crastia*) *modesta*, Marshall and de Nicéville, Butt. of India, p. 77 (1882).

Hab. Siam.

3. Menama cupreipennis.

Crastia cupreipennis, Moore, Proc. Zool. Soc. 1878, p. 823.
Euplœa (*Crastia*) *cupreipennis*, Marshall and de Nicéville, Butt. of India, p. 77 (1882).

Hab. Upper Tenasserim.

4. Menama tavoyana, n. sp. (Plate XXX. fig. 6, ♂.)

Comparatively larger than *M. modesta*; the outer margin of the wings is disinctly scalloped, in *M. modesta* they are almost even; fore wing in male much darker in colour, the basal four fifths dark pitchy brown, brilliantly glossed with steel-blue, with a distinct minute white spot between upper and middle median veins and a larger spot on costa. Hind wing pitchy brown basally, with a marginal and submarginal row of spots smaller than in *M. modesta*.

Female. Fore wing of the same dark colour, but less glossy blue surface: hind wing with both rows of marginal spots of the same size as in male.

Expanse, ♂ ♀ $3\frac{3}{8}$ inches.

Hab. Tavoy, Tenasserim. In coll. F. Moore.

5. Menama buxtoni, n. sp.

Male. Fore wing violet-brown, washed with violet-blue uniformly throughout the surface to extreme outer margins. Hind wing paler, both rows of marginal spots smaller and of a uniform size, the inner row being disposed in a curve, not in a straight series as in *M. modesta*.

Expanse $3\frac{1}{8}$ inches.

Hab. Sumatra (*Buxton*). In coll. F. Moore.

6. Menama lorzæ, n. sp. (Plate XXXI. fig. 5.)

Euplœa lorzæ, Boisduval, MS.

Male. Violet-brown: fore wing with a more or less violet-blue gloss in some lights suffusing the basal two thirds; a submarginal upper series of white spots similarly disposed to those in *Tronga crameri*, the three upper narrow, the first being very minute, the fourth largest, fifth smaller, sixth and seventh minute; three or four very minute upper marginal spots, and a minute spot also on the costa above end of the cell. Underside paler: fore wing spotted as above; also with two or three minute lower marginal spots, a bluish-white cell-spot and two on the disk beyond: hind wing with a bluish-white cell-spot and seven discal spots beyond, and a lower marginal series of small white spots.

Expanse $3\frac{1}{4}$ inches.

Hab. Sandakan, N. Borneo (*Pryer*). In coll. Godman and Salvin and C. Oberthür.

7. Menama mouhotii, n. sp. (Plate XXXI. fig. 6.)

Male. Ochreous brown, slightly tinged with olivaceous: fore wing with two very small indistinct whitish lower submarginal spots, and two similar marginal spots: hind wing with a submarginal row of nine large whitish spots, the seven lower oval, the two upper rounded; a marginal row of small round spots. Underside paler: fore wing with the two lower submarginal and marginal spots, a small spot at lower end of the cell, two beyond the cell, and a large one between

middle and lower median veins: hind wing with marginal and submarginal spots as above, and five very small discal spots.

Expanse $3\frac{1}{4}$ inches.

Hab. Cambodia (*Mouhot*). In coll. Messrs. Godman and Salvin.

TRONGA, n. g.

Euplœa (*Crastia*, sect. C, part.), Marshall and de Nicéville, Butt. of India, p. 76 (1882).

Male. Fore wing broadly elongate, somewhat quadrate in form, the posterior margin being very broadly convex; cell much broader and with longer discocellulars than in *Vadebra*; upper discocellular with a short spur or discoidal veinlet emitted within the cell: hind wing with the apex and exterior margin more convex.

Type *T. crameri.*

1. TRONGA CRAMERI.

Euplœa crameri, Lucas, Rev. Zool. 1853, p. 318, ♂.

Euplœa crameri, Moore, Catal. Lep. Mus. E.I. C. i. p. 129 (1857), ♂.

Crastia crameri, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.

Euplœa johanna, Kirby, Syn. Catal. D. Lep. p. 17 (1871).

Euplœa (*Crastia*) *crameri*, Marshall and de Nicéville, Butt. of India, p. 78, pl. 8. f. 15 (1882).

Female paler than male, and of a more olivaceous brown tint: fore wing with eight submarginal spots; a costal spot above end of the cell, one at lower end of the cell, and two discal beyond the cell: hind wing with two or three upper submarginal spots and indistinct discal and submarginal spots.

Hab. Borneo (*Lowe*). Colls. Paris Museum, British Museum, F. Moore, Salvin and Godman.

Having compared Lucas's type of *T. crameri* with the insect which I also described under the same name, I find that they are identical. The specimens in the East-India Company's Museum had been so labelled by Dr. Boisduval.

2. TRONGA BISERIATA, n. sp.

Allied to *T. crameri.*

Male. Uniform dark violet-brown, without gloss: fore wing with a marginal row of small very prominent white spots, which are obsolete at the apex, and a submarginal row of somewhat larger spots, which are obsolete at the lower end, the penultimate upper spot being the largest and oval; a small spot also on the disk between upper and middle median veins: hind wing with a marginal row of very prominent small white spots.

Expanse $3\frac{3}{8}$ inches.

Hab. Trinkut, Nicobar Islands. In coll. British Museum.

3. TRONGA MARSDENI, n. sp.

Intermediate between *T. bremeri* and *T. crameri.* Colour paler. Fore wing more the shape of that in *T. crameri*, being comparatively

longer and narrower than in *T. bremeri*; the markings also are more like those in *T. crameri*, there being only two small upper submarginal spots, which, however, are more elongated and narrower; the next (or largest) spot is also much longer and narrower, the fourth smaller, and the lower three very small; the marginal row is distinct, but very small: hind wing with two rows of small distinct white spots.

Expanse $3\frac{1}{2}$ inches.

Hab. Singapore. In coll. F. Moore.

4. Tronga bremeri. (Plate XXIX. fig. 5, ♂.)

Euplœa bremeri, Felder, Wien. entom. Monats. iv. p. 398 (1860); Distant, Rhopalocera Malayana, p. 23, pl. 2. f. 4, ♂.

Crastia bremeri, Butler, Journ. Linn. Soc., Zool. xiv. p. 298 (1878).

Euplœa (*Crastia*) *bremeri*, Marshall and de Nicéville, Butt. of India, p. 79 (1882).

Hab. Malay peninsula, Malacca (Province Wellesley); British Burmah (Tavoy, Mergui).

Female. Slightly paler than in male, marked the same on both wings.

5. Tronga olivacea, n. sp.

Female. Pale olive-brown: fore wing with a very prominent small whitish costal spot above end of the cell, two on the disk, a submarginal series of nine spots, the three upper small and narrow, the fourth and fifth large and elongated, the others small but irregular in size, the eighth exceeding the other three in size; a marginal row of thirteen small spots: hind wing with a submarginal and marginal row of small prominent whitish spots. Underside paler, with all the markings as above; the fore wing also with a greyish streak between median and submedian, and hind wing with four small discal spots.

Expanse, ♀ $2\frac{7}{8}$ inches.

Hab. Minthantoung, Thoungyeen valley, Tenasserim (*Bingham*). In coll. W. L. Distant.

6. Tronga moorei.

Euplœa moorei, Butler, Proc. Zool. Soc. 1866, p. 277, ♀ (nec Felder).

Crastia moorei, Butler, Journ. Linn. Soc., Zool. xiv. p. 298.

Smaller than *T. brookei*: fore wing with the submarginal spots more distinct and rounded, and the hind wing with a complete marginal row of small spots and a short upper submarginal row.

Expanse $3\frac{1}{8}$ inches.

Hab. Sumatra (*Brit. Mus.*); ? Borneo (*Pryer*). Coll. F. Moore.

7. Tronga niasica, n. sp.

Dark violet-brown, inclining to black-brown: fore wing with a small white costal spot, two small slightly oval spots beyond upper end of

the cell, a small discal spot beyond lower end of the cell, a submarginal series of eight spots, the three upper of which are small and slender, the fourth and fifth large and bluntly oval in shape, the three lower smaller and nearly round, a marginal row of small narrow spots, extending to the apex and disposed alternately against the margin and towards the submarginal row. Hind wing with a marginal row of very small dentate spots, and a nearly obsolete upper submarginal row.

Expanse, ♂ $3\frac{1}{8}$ inches.

Hab. Nias Island, W. coast of Sumatra. In coll. British Museum.

Approaches nearest to *T. biseriata.*

8. Tronga brookei, n. sp.

Allied to *T. bremeri.* Comparatively smaller and narrower; of a paler brown colour and with a violet-blue tint.

Male. Fore wing with similarly disposed spots, all of which are smaller, the marginal series being very minute, the four lower submarginal also very small and the upper ones half the size of those in *T. bremeri*; costal and (sometimes two) discal spots also small: hind wing with very minute or scarcely distinguishable marginal dots.

Female. Paler; marked as in male, and with an additional spot within the cell.

Expanse, ♂ $3\frac{4}{8}$, ♀ $3\frac{5}{8}$ inches.

Hab. Sarawak, Borneo (*Wallace*). In coll. British Museum.

9. Tronga labuana, n. sp.

Allied to *T. crameri.*

Male. Fore wing with eight similar but comparatively shorter and broader submarginal spots, the sixth and seventh lower spots being larger; an indistinct marginal lower row of very minute spots: hind wing with two complete series of small spots.

Female. Fore wing with somewhat larger submarginal and marginal spots, a small costal spot, one within the cell, and one on the disk: hind wing with two rows of spots as in male.

Expanse $3\frac{5}{8}$ inches.

Hab. Labuan, Borneo (*Lowe*). In coll. Messrs. Godman and Salvin.

10. Tronga daatensis, n. sp.

From typical *T. crameri* this differs on the fore wing in the subapical spots being comparatively broader and larger, three small lower spots occurring in the submarginal series, and in having a nearly complete marginal row of small distinct spots: hind wing with a marginal row of small distinct spots. Underside with all these spots more prominent, the marginal row larger, and the discal series of spots much larger than those in *T. crameri.*

Expanse, ♂ $3\frac{2}{4}$ inches.

Hab. Island of Daat, Labuan, Borneo. In coll. W. L. Distant.

11. Tronga pryeri, n. sp.

Near to *T. bremeri*, much darker-coloured.

Male. Fore wing with similarly disposed spots; the three upper submarginal smaller, the fourth and fifth shorter, the sixth, seventh and eighth, and the discal spot being larger: hind wing with two complete rows of larger-sized spots.

Female. Marked as in male, all the spots, however, being larger.

Expanse, ♂ $3\frac{1}{2}$, ♀ $3\frac{3}{4}$ inches.

Hab. Sandakau, Borneo (*Pryer*). In coll. Godman and Salvin and W. L. Distant.

12. Tronga kinbergi.

Euplœa kinbergi, Wallengren, Wien. ent. Monats. iv. p. 35 (1860); id. Eugenies Resa, p. 352.

Crastia kinbergi, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.

Hab. China. In coll. British Museum.

Sabanosa, n. g.

Fore wing somewhat broad; costal margin almost straight, apex produced; exterior margin oblique, slightly sinuous; posterior margin slightly convex. Hind wing broad, bluntly conical; exterior margin convex, slightly sinuous.

Sabanosa cratis.

Euplœa cratis, Butler, Proc. Zool. Soc. 1866, p. 297, fig. 1, ♂.

Crastia cratis, Butler, Journ. Linn. Soc. Zool. xiv. p. 297.

Hab. Philippines (Babuyanes).

Mr. Georg Semper tells me that the female of this insect is like the male, except that in the fore wing the posterior margin is not convex.

Adigama, n. g.

Crastia (part.), Butler.

Euplœa (*Crastia*, sect. C, part.); Marshall and de Nicéville, Butt. of India, p. 76 (1882).

Wings large, broad. Fore wing elongated, triangular; apex prolonged, exterior margin very oblique, waved; discocellulars bent in the middle above lower radial, emitting a short spur within the cell from the angle; male with the posterior margin very convex towards the angle: hind wing broad.

Type *A. ochsenheimeri* (Moore).

1. Adigama malayica.

Crastia malayica, Butler, Journ. Linn. Soc., Zool. xiv. p. 297 (1878).

Euplœa malayica, Distant, Rhopalocera Malayana, p. 22, pl. 2. fig. 7, ♂.

Euplœa (*Crastia*) *malayica*, Marshall and de Nicéville, Butt. of India, p. 79 (1882).

Hab. Malay peninsula, Penang, Singapore, Sumatra.

2. ADIGAMA OCHSENHEIMERI.

Euplœa ochsenheimeri, Moore, Catal. Lep. Mus. E.I. C. i. p. 132 (1857), nec Lucas.

Crastia ochsenheimeri, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.

Euplœa (*Crastia*) *ochsenheimeri*, Marshall and de Nicéville, Butt. of India, p. 79 (1882).

Euplœa hübneri, Boisd. MS.

Hab. Java (*Horsf.*). Coll. British Museum.

3. ADIGAMA SCUDDERI.

Crastia scudderi, Butler, Journ. Linn. Soc., Zool. xiv. p. 297 (1878).

Hab. Borneo.

B. *One "sexual mark" or scent-producing organ on fore wing.*

CHANAPA, n. g.

Fore wing arched at the base, apex acute, exterior margin oblique and excavated in the middle; posterior margin in male very convex in the middle, and with a short slender sericeous brand or scent-producing organ. Hind wing subconical, exterior margin convex.

Type *C. corinna.*

1. CHANAPA CORINNA.

Danais corinna, Macleay, King's Australia, ii. p. 402 (1827).

Euplœa corinna, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.

Hab. Australia (New Holland).

2. CHANAPA LEWINI.

Euplœa lewinii, Felder, Reise Novara, Lep. ii. p. 345 (1867).

Hab. Australia (Port Bowen; Champion Bay).

3. CHANAPA ANGASI.

Euplœa angasii, Felder, Reise Novara, Lep. ii. p. 343 (1867); H.-Schäff. Stett. ent. Zeit. 1869, p. 69, pl. 2. fig. 6, ♂; id. Exot. Schmett. ii. fig. 108, ♂ (1869); Semper, Mus. Godeffroy, xiv. p. 141 (1879).

Hab. Australia (Cape York; Moreton Bay).

ANDASENA, n. g.

Differs from typical *Penoa* in the fore wing being more pointed, the exterior margin longer and slightly concave in the middle, the sericeous band broader: hind wing more convex on the anterior margin and the exterior margin less convex.

Type *A. swainsoni.*

1. ANDASENA BELINDA.

Euplœa belinda, Butler, Journ. Linn. Soc., Zool. xiv. p. 299 (1878).

Euplœa orope, var., Butler, Proc. Zool. Soc. 1866, p. 299.

Hab. Sumatra.

2. ANDASENA BAUDINIANA. = Vanama euphon Feld

Danais baudiniana, Godart, Enc. Méth. ix. p. 181 (1819).

Hab. Timor. [illegible]

3. ANDASENA OROPE.

Euplœa orope, Boisduval, Voy. Astrol. Lép. p. 100 (1832); Spec. Gén. Lép. i. pl. ii. fig. 9 (1836); Butler, Proc. Zool. Soc. 1866, p. 299; Journ. Linn. Soc., Zool. xiv. p. 299.

Hab. Taiti (*Boisd.*); Timor (*Butler*).

4. ANDASENA SULUANA, n. sp.

Allied to *A. lucasii*. Smaller in size.

Male. Fore wing with the submarginal spots smaller and disposed in a more regular series, marginal spots and the costal spot minute: hind wing with both rows of spots very small, being of similar size to those in *A. swainsonii*.

Female. Fore wing with slightly larger submarginal spots; two small discal spots, a spot at lower end of the cell, and another on the costal border: hind wing with both rows of spots larger than in the male and similar in shape to those in *A. lucasii*.

Expanse ♂ 3, ♀ $3\frac{1}{4}$ inches.

Hab. Sulu archipelago (*Pryer*). In coll. Messrs. Godman and Salvin.

5. ANDASENA LUCASI, n. sp.

Euplœa lucasii, Boisduval, MS.

Allied to *A. swainsonii*. Fore wing of a less dark tint of colour; the sericeous streak of the same length but slightly narrower; the five submarginal apical spots half the size; the spot between middle and lower medians large and circular; a duplex spot also between lower median and submedian; an oval spot on the costa, and two more or less distinct spots on the disk. Hind wing with the inner row of spots of a lengthened oval shape and prominent, the upper second and third cordate.

Female marked as in male, all the spots somewhat larger.

Expanse $3\frac{1}{4}$ to $3\frac{1}{2}$ inches.

Hab. Philippines (Mindanao). In colls. G. Semper, C. Oberthür, F. Moore.

6. ANDASENA SWAINSONII.

Danais swainsonii, Godart, Enc. Méth. ix. Suppl. p. 815 (1823).

Euplœa swainsonii, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.

Hab. Philippines (Luzon).

7. ANDASENA DONOVANI.

Euplœa donovanii, Felder, Reise Novara, Lep. ii. p. 343 (1867), ♂.

Hab. Celebes.

8. Andasena eleutho.

Danais eleutho, Quoy and Gaimard, Freycinet's Voy. p. 554, pl. 83. fig. 2 (1815); Godart, Enc. Méth. ix. p. 815; Boisduval, Voy. Astrolabe, Ent.p. 100.

Euplœa eleutho, Butler, Journ. Linn. Soc., Zool. xiv. p. 299.

Hab. Isle of Guam, Ladrone Islands; Samoa and Ellice Islands (B.M.).

Deragena, n. g.

From typical *Andasena* this differs in the fore wing being somewhat shorter and more convex at the apex, the sericeous brand only half the length, and the exterior margin more even: hind wing also with an even exterior margin.

Type *D. proserpina*.

1. Deragena childreni, n. sp.

Euplœa grayi, Boisduval, MS.

Upperside dark chocolate-brown, palest externally: fore wing with a submarginal apical series of very minute white dentate spots; sericeous streak five twelfths of an inch in length: hind wing with a submarginal upper series of very small white spots, and a smaller series of very indistinct marginal spots. Underside—fore wing with a more distinct submarginal row of dentate white spots and three minute bluish-white discal spots: hind wing with a submarginal and marginal upper series of distinct white spots, and a curved discal series of smaller bluish-white spots, one being within the cell.

Expanse $2\frac{7}{8}$ inches.

Hab. Java. In. coll. Mons. C. Oberthür.

2. Deragena proserpina.

Euplœa proserpina, Butler, Proc. Zool. Soc. 1866, p. 300, ♂; Journ. Linn. Soc., Zool. xiv. p. 300.

Euplœa herrichii, Felder, Reise Novara, Lep. ii. p. 344, pl. 39. figs. 3, 4 (1867).

Hab. Fiji Islands (Ovalau, Vanua Levu).

3. Deragena schmeltzii.

Euplœa schmeltzii, Her.-Schäffer, Stettin. ent. Zeit. 1869, p. 70, pl. 2. f. 8, ♀; Exot. Schmett. ii. f. 110 (1869); Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Samoa, Upolu, Lifu.

4. Deragena whitmei.

Euplœa whitmei, Butler, Ann. & Mag. Nat. Hist. ser. 4, xx. p. 349, ♀ (1877).

Hab. Royalty Islands (Lifu).

5. Deragena boisduvalii.

Euplœa boisduvalii, Lucas, Rev. Zool. 1853, p. 321.

Hab. Australia.

Bibisana, n. g.

Fore wing in male prolonged and acuminate at the apex, exterior margin very oblique, hind margin broadly convex, with a lengthened broad sericeous brand.

Type *B. horsfieldii.*

1. Bibisana horsfieldii.

Euplœa horsfieldii, Felder, Reise Novara, Lep. ii. p. 333, pl. 40. f. 4, ♂ (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Celebes.

2. Bibisana leachii.

Euplœa leachii, Felder, Reise Novara, Lep. ii. p. 334, ♀ (1867).

Hab. Celebes. In coll. W. L. Distant.

3. Bibisana diana.

Euplœa diana, Butler, Proc. Zool. Soc. 1866, p. 297, pl. 29. f. 6, ♂; id. Journ. Linn. Soc. Zool. xiv. p. 300.

Euplœa kirbyi, Felder, Reise Novara, Lep. ii. p. 334, ♂ ♀ (1867).

Hab. Celebes.

4. Bibisana configurata.

Euplœa configurata, Felder, Reise Novara, Lep. ii. p. 326, pl. 42. f. 1, 2, ♀ (1867).

Hab. Celebes.

Betanga, n. g.

Fore wing shorter and comparatively more regularly triangular than in typical *Crastia* (*C. core*), the costa more arched, the posterior margin more convex, the sericeous brand much larger, broader, and longer.

Type *B. megæra.*

1. Betanga scherzeri.

Euplœa scherzeri, Felder, Verh. zool.-bot. Gesell. xii. p. 479 (1862); Reise Novara, Lep. ii. p. 335 (1867); Moore, Lep. of Ceylon, i. p. 12 (1880); Marshall and de Nicéville, Butt. of India, p. 85 (1882).

Hab. Ceylon.

2. Betanga wallengrenii.

Euplœa wallengrenii, Felder, Reise Novara, Lep. ii. p. 336 (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Java.

3. Betanga maura.

Euplœa maura, Hopffer, Stettin. ent. Zeit. 1874, p. 32, ♂.

Hab. Celebes.

4. Betanga anthracina.

Euplœa anthracina, Butler, Proc. Zool. Soc. 1866, p. 280, f. 1, ♂; Journ. Linn. Soc., Zool. xiv. p. 301.
Euplœa walkenaieri, Boisd. MS.
Hab. Amboina, Gilolo.

5. Betanga duponchelii.

Euplœa duponchelii, Boisduval, Voy. Astrol. Lep. p. 97 (1832); Butler, Journ. Linn. Soc., Zool. xiv. p. 301.
Euplœa geyeri, Boisd. MS.
Hab. Bouru, Ceram.

6. Betanga dodingensis, n. sp.

Euplœa moorei, Boisduval, MS.

Closely allied to *B. duponchelii*. Upperside of a more uniform colour: fore wing with a somewhat broader sericeous streak; no marginal pale spots: hind wing unspotted. Underside also of a more uniform colour: fore wing with four discal bluish-white spots, and two very minute costal dots: hind wing with a small bluish-white spot within the cell; a discal series of six spots, and an upper submarginal series of three or four spots.

Expanse $3\frac{1}{4}$ inches.

Hab. Dodinga. In colls. M. Oberthür and F. Moore.

7. Betanga vitella.

Euplœa vitella, Montrouze, Ann. Soc. Phys. Nat. Lyon, 1856, p. 403.
Hab. Woodlark Island.

8. Betanga megæra.

Euplœa megæra, Butler, Proc. Zool. Soc. 1866, p. 276; Journ. Linn. Soc., Zool. xiv. p. 300.
Hab. Aru.

Penoa, n. g.

Euplœa (sect. C & D), Marshall and de Nicéville, Butt. of India, p. 80 (1882).

Male. Differs from typical *Crastia* (*core*) in having a less triangular form of fore wing, which is also broader and is glossed with purple-violet or deep blue, the exterior and posterior margins convex, the edge of the latter more even, and in possessing a very long and broad sericeous brand: hind wing shorter, the costal margin straighter.

Type *P. alcathoe*.

1. Penoa alcathoe.

Danais alcathoe, Godart, Enc. Méth. ix. p. 178 (1819).
Euplœa alcathoe, Butler, Journ. Linn. Soc., Zool. xiv p. 301;

Marshall and de Nicéville, Butt. of India, p. 86, pl. 9. f. 17, ♂ ♀ (1882).

Euplœa doubledayi, Felder, Reise Novara, Lep. ii. p. 337 (1867).

Hab. Silhet (*Brit. Mus.*), Assam (*Atkinson*), Cachar, Mergui, Upper Tenasserim.

2. Penoa deione. (Plate XXX. fig. 2, ♂.)

Euplœa deione, Westwood, Cabinet of Oriental Ent. p. 76, pl. 37. f. 3, ♂ (1848); Butler, Journ. Linn. Soc., Zool. xiv. p. 301; Marshall & de Nicéville, Butt. of India, p. 88.

Euplœa poeyi, Felder, Reise Novara, Lep. ii. p. 340, ♀ (1867).

Euplœa magnifica, Butler, Trans. Ent. Soc. 1874, p. 423, ♀.

Hab. Assam (*Westwood*), Silhet (*Brit. Mus.*), Sikkim (*Atkinson*).

3. Penoa menetriesii.

Euplœa ménétriésii, Felder, Wien. entom. Monats. iv. p. 398 (1860); Butler, Journ. Linn. Soc., Zool. xiv. p. 301; Distant, Rhop. Malayana, p. 34, pl. 3. f. 4, 5, ♂ ♀; Marshall & de Nicéville, Butt. of India, p. 87.

Hab. Malay peninsula (Province Wellesley, Malacca); ? Borneo (*Lowe*). Coll. Godman and Salvin.

4. Penoa pinwillii.

Euplœa pinwillii, Butler, Trans. Linn. Soc. 2nd ser. i. p. 535, pl. 69. f. 9 (1876–9); Journ. Linn. Soc., Zool. xiv. p. 301; Distant, Rhop. Malayana, p. 35, pl. 3. f. 9, 10.

Hab. Malay peninsula (Province Wellesley, Malacca); Sumatra.

5. Penoa limborgii. (Plate XXX. fig. 7, ♂.)

Euplœa limborgii, Moore, Proc. Zool. Soc. 1878, p. 823, pl. 41. f. 2; Marshall & de Nicéville, Butt. of India p. 89 (1882).

Euplœa gerningii, Boisd. MS., ♂.

Hab. British Burmah (Tenasserim, Mergui).

6. Penoa eyndhovii.

Euplœa eyndhovii, Felder, Reise Novara, Lep. ii. p. 338 (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 301.

Hab. Java.

7. Penoa geyeri.

Euplœa geyeri, Felder, Reise Novara, Lep. ii. p. 338 (1867).

Hab. Java.

8. Penoa transpectus, n. sp.

Male. Upperside—fore wing dark brown as in *P. alcathoe*, but somewhat paler, the submarginal and discal spots of the underside being slightly visible; a broad lengthened straight sericeous streak

between lower median and submedian veins: hind wing paler brown, with two or three apical submarginal indistinct whitish spots and anal marginal series of six or seven spots. Underside paler brown: fore wing with six small submarginal and six marginal smaller white spots, two purple-white subcostal spots, one at lower end of the cell and two beyond it, beneath which is an elongated ochreous-white spot: hind wing with a purple-white spot at the end of the cell, and five contiguous spots beyond; a marginal and submarginal row of small white spots.

Female. Upperside paler; markings of the underside slightly visible. Underside—fore wing similarly marked as male, the marginal spots being less prominent: hind wing with seven spots outside the cell, the submarginal series all elongated as in *P. pinwillii*, and the marginal row more prominent.

Expanse 4 inches.

Hab. Billiton Island. In coll. Messrs. Godman and Salvin.

9. Penoa zonata.

Euplœa zonata, Druce, Proc. Zool. Soc. 1873, p. 338, ♂.

Hab. N. Borneo (*Lowe*). In coll. Godman and Salvin.

Genus Crastia, Hübner.

Crastia, Hübner, Verz. bek. Schmett. p. 16 (1816).

Euplœa, Boisduval, Doubleday, Butler; Moore, Lep. of Ceylon, i. p. 11 (1880).

Euplœa (sect. A), Marshall & de Nicéville, Butt. of India, p. 79 (1882).

Fore wing elongated, triangular; costa slightly arched, apex rounded; exterior margin oblique, slightly waved and concave in the middle; posterior margin almost straight in both sexes; male with a short slender sericeous brand or scent-producing organ between the lower median and submedian veins; costal vein extending to nearly two thirds the margin; first subcostal branch emitted at one fifth before end of the cell, second from the extreme end, third about one third beyond, fourth and fifth at one third before the apex; upper discocellular shortest, inwardly oblique, angled outward close to the subcostal and emitting a short spur from its lower end within the cell; lower discocellular outwardly oblique and angled outward close to its upper end, the radials from their upper angles; median branches from angles wide apart; submedian slightly recurved, with a short slender lower veinlet at its base. Hind wing short, bluntly oval; costa slightly arched in the middle; costal vein short, curved near the base; precostal short, forked; first subcostal branch emitted from angle before end of the cell; discocellulars outwardly oblique, upper shortest and very concave, lower slightly convex, the radial from their middle; median branches from angles widely apart; submedian straight; internal curved at its base. Body long, slender; antennæ slender; legs squamose; tibiæ and tarsi spinous beneath; palpi short, pilose.

Larva with three anterior pairs and one posterior pair of fleshy filaments.

Type *C. core*, Cramer.

Note. Cramer's *P. core* has hitherto been considered the same species as that described by Fabricius (Ent. Syst. iii. p. 41) under the name of *corus* and cited under that name in his genus *Euplœa* (Illiger's Mag. vi. p. 280).

These two names, however, refer to totally distinct insects, each belonging to a different section of this subfamily of butterflies[1].

From the fact of these two names having been thus considered, by modern authors, *to represent the same species*, several errors have resulted in determining the types in certain of the genera.

These errors are now, it is hoped, satisfactorily worked out in the present memoir, and the several species assigned to their proper genera.

1. Crastia vermiculata.

Euplœa vermiculata, Butler, Proc. Zool. Soc. 1866, p. 276; Journ. Linn. Soc., Zool. xiv. p. 301 (1878).

Euplœa vermiculata, Marshall & de Nicéville, Butt. of India, p. 81 (1882).

Limnas M. cora, Hübner, Samml. exot. Schmett. Bd. i. pl. 25. f. 1, 2 (1806).

Hab. India (Himalaya Mountains).

2. Crastia core. (Plate XXIX. fig. 8, ♂.)

Papilio core, Cramer, Pap. Exot. iii. pl. 266. f. E, F (1780), nec *corus*, Fabricius.

Crastia core, Hübner, Verz. bek. Schmett. p. 16 (1816).

Euplœa core, Butler, Journ. Linn. Soc., Zool. xiv. p. 301 (1878); Marshall & de Nicéville, Butt. of India, p. 80 (1882), pl. 9. f. 16, ♂ ♀.

Danais coreta, Godart, Enc. Méth. ix. p. 178 (1819).

Hab. India, Lower (Kutch, Bombay, Nilgiris, Calcutta, Andamans).

3. Crastia asela.

Euplœa asela, Moore, Ann. Nat. Hist. ser. 4, xx. p. 45 (1877); Lep. of Ceylon, i. p. 11, pl. 6. f. 2 (1880); Marshall & de Nicéville, Butt. of India, p. 81 (1882).

Hab. Ceylon.

4. Crastia graminifera, n. sp.

Differs from *C. vermiculata* in the upperside being of a uniform pale olive-brown: fore wing with the marginal row of spots more recurved across the wing and sharply defined, the third and fourth upper spots of a larger oval shape, the lower somewhat smaller; a minute spot on the costa above end of the cell, and another

[1] For *E. corus*, Fabricius, see p. 289.

spot beyond situated between the upper and middle median branches: hind wing with the two rows of spots smaller and more sharply defined.

Expanse, ♂ $3\frac{1}{8}$ inches.

Hab. Malay peninsula. In coll. Mons. C. Oberthür.

5. Crastia distanti. (Plate XXIX. fig. 6, ♂.)

Crastia distantii, Moore, Annals & Mag. Nat. Hist. ser. 5, ix. p. 453 (1882); Distant, Rhopalocera Malayana, p. 32, pl. 5. f. 9, ♂.

Upperside dark cupreous-brown, glossed with olive-green: fore wing with a series of eight or nine white submarginal spots, and a marginal row of small spots, similarly disposed and of the same shape as those in the Malayan *Tronga bremeri*, but somewhat larger; two small spots also on the disk below the upper and middle median veins in some specimens; a short slender sericeous streak between lower median and submedian: hind wing with two rows of prominent white spots. Underside greenish olive-brown: fore wing with marginal markings as above; two small spots also on the costa, another spot at end of the cell, and three on the disk: hind wing with prominent marginal spots; a spot at end of the cell, and five spots beyond.

Expanse $2\frac{6}{8}$ to $3\frac{1}{8}$ inches.

Hab. Sumatra (type); Malay peninsula (Province Wellesley) In coll. F. Moore and W. L. Distant.

6. Crastia esperi.

Euplœa esperi, Felder, Verh. zool.-bot. Gesell. xii. p. 481, ♀ (1862); Moore, P. Z. S. 1877, p. 582; W.-Mason, Journ. Asiat. Soc. Beng. 1881, p. 227; Marshall & de Nicéville, Butt. of India, p. 83 (1882).

Hab. Nicobars.

7. Crastia godarti.

Euplœa godartii, Lucas, Rev. Zool. 1853, p. 319, ♀; Butler, P. Z. S. 1866, p. 275; id. Journ. Linn. Soc., Zool. xiv. p. 301; Moore, P. Z. S. 1878, p. 824; Distant, Rhop. Malayana, p. 34, pl. 3. f. 8.

Euplœa siamensis, Felder, Reise Novara, Lep. ii. p. 341, pl. 41. f. 6 (1867).

Euplœa godartii, Marshall & de Nicéville, Butt. of India, p. 84 (1882).

Hab. British Burmah; Upper Tenasserim; Malacca; Siam; Java (*Lucas*), Philippine Islands (Brit. Mus. coll.).

8. Crastia binghami, n. sp.

Allied to *C. godarti*. Similar in colour, but with the pitchy-brown tint darker and confined more obliquely to the basal area, the apical area without any trace of purplish grey.

Male. Fore wing with similar marginal spots and a shorter sericeous streak; hind wing with similar spots as in *C. godarti*.

Female. Fore wing with a curved submarginal row of seven spots,

the upper third distinct, and the fourth indistinct; the marginal row as in male: hind wing as in male.

Expanse, ♂ $3\frac{3}{8}$, ♀ $3\frac{6}{8}$ inches.

Hab. Thoungyeen, Upper Tenasserim (*Capt. Bingham*). In coll. British Museum and W. L. Distant.

9. Crastia layardi.

Euplœa layardi, Druce, Proc. Zool. Soc. 1874, p. 103, pl. 16. f. 1, ♀.

Hab. Siam; Saigon.

10. Crastia inconspicua, n. sp.

Male. Upperside similar in colour to *C. layardi*: fore wing shorter anteriorly; no marginal or apical spots; a very slender short sericeous streak between the lower median and submedian veins: hind wing with two marginal rows of whitish spots decreasing to smaller brownish spots toward the apex. Underside—fore wing with a bluish-white spot at lower end of the cell, another beyond the cell, a minute streak below the lower radial, and another on the costa, also a larger oval spot below the cell: hind wing with a small white spot at end of the cell, five contiguous spots beyond it, and two marginal rows of spots, the inner series oval.

Expanse $3\frac{1}{4}$ inches.

Hab. Sumatra (*Wallace*). In coll. Messrs. Godman and Salvin.

11. Crastia camorta. (Plate XXXI. fig. 7, ♂.)

Euplœa camorta, Moore, Proc. Zool. Soc. Lond. 1877, p. 582; Wood-Mason, Journ. Asiatic Soc. Bengal, 1881, p. 228, 1882, p. 15; Marshall & de Nicéville, Butt. of India, p. 86 (1882).

Hab. Nicobar Islands.

12. Crastia frauenfeldi.

Euplœa frauenfeldii, Felder, Verh. zool.-bot. Gesell. xii. p. 479 (1862); Reise Novara, Lep. ii. p. 342, pl. 41. f. 4 (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 300, ♂ (1878).

Euplœa frauenfeldi, Moore, Lep. of Ceylon, i. p. 12 (1880); Marshall & de Nicéville, Butt. of India, p. 79 (1882).

Hab. Ceylon.

13. Crastia amymone.

Danais amymone, Godart, Enc. Méth. ix. p. 179 (1819).

Euplœa amymone, Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. China; Cochin China; Sumatra (B.M.).

14. Crastia lorquini.

Euplœa lorquinii, Felder, Reise Novara, Lep. ii. p. 340 (1867).

Hab. S. China; Macao. In coll. F. Moore and H. G. Smith.

15. Crastia felderi.

Euplœa felderi, Butler, Proc. Zool. Soc. 1866, p. 275, ♀ ; Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Sumatra (type, B.M.); Hong Kong (B.M.).

16. Crastia prunosa, n. sp.

Allied to *C. amymone*. Upperside of a more purplish violet-brown, the borders paler, the basal area in certain lights bluish-violet, the sericeous streak shorter, the two marginal rows of spots almost obliterated and of a violet-brown: hind wing with very indistinct marginal rows of pale brown spots. Underside—fore wing with only very small inner apical marginal spots, and two spots above posterior angle: hind wing with no marginal spots.

Expanse $3\frac{1}{4}$ inches.

Hab. China. In coll. C. Oberthür.

17. Crastia haworthi.

Euplœa haworthii, Lucas, Rev. Zool. 1853, p. 317, ♂.

Euplœa hübneri, Moore, Catal. Lep. Mus. E.I. C. i. p. 128 (1857); Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Euplœa janus, Butler, Proc. Zool. Soc. 1866, p. 273; Journ. Linn. Soc., Zool. xiv. p. 300.

Euplœa moorei, Felder, Reise Novara, Lep. ii. p. 315 (1867), nec Boisd.

Salpinx elusina, Hübner, Samml. exot. Schmett. Bd. ii. pl. 9. f. 1, 2 (nec Cramer).

Hab. Java.

18. Crastia snelleni, n. sp.

Male and Female. Umber-brown: fore wing with a submarginal series of whitish spots, the upper five very minute, the upper first, second, fourth, and fifth being almost obsolete, the sixth and seventh small; a marginal lower row of very small indistinct spots; sericeous streak greyish-brown. Hind wing with a marginal row of small brownish-white oval spots, and a submarginal row of eight narrow lengthened streaks and three upper rounded spots.

Expanse 4 inches.

Hab. Philippines (Mindanao). In coll. G. Semper and F. Moore.

19. Crastia illudens.

Euplœa illudens, Butler, Ann. Nat. Hist. ser. 5, x. p. 40, ♂ ♀ (1882).

Hab. Duke-of-York Island; New Britain.

20. Crastia decipiens.

Euplœa decipiens, Butler, Ann. Nat. Hist. ser. 5, x. p. 41, ♂ ♀ (1882).

Hab. Duke-of-York Island.

Mahintha, n. g.

Male with short broad wings: the fore wing somewhat the shape of that of *Salpinx*, but less quadrate; costal margin arched; exterior

margin nearly erect, waved, slightly angular below the apex and above posterior angle; hind margin long, convex; with a short slender sericeous brand. Hind wing obovate; exterior margin waved; no pale discoidal patch.

MAHINTHA SUBDITA.

Euplœa subdita, Moore, Proc. Zool. Soc. Lond. 1878, p. 823; Marshall & de Nicéville, Butt. of India, p. 82 (1882).

Hab. Tenasserim. In coll. British Museum.

KARADIRA, n. g.

Euplœa, sect. B (part.), Marshall & de Nicéville, Butt. of India, p. 80 (1882).

Male. Distinguished from typical *Crastia* (*core*) in the fore wing having the posterior margin very considerably produced into a broad convex lobe, a comparatively broader and shorter cell, the submedian vein slightly recurved and terminating below the posterior angle; and with a medium-sized sericeous brand. Hind wing much more round in form.

KARADIRA ANDAMANENSIS.

Euplœa andamanensis, Atkinson, Proc. Zool. Soc. 1873, p. 736, pl. 63. f. 2, ♂; Butler, Journ. Linn. Soc., Zool. xiv. p. 300; Moore, P. Z. S. 1877, p. 582; Marshall & de Nicéville, Butt. of India, p. 84 (1882).

Hab. Andaman Isles.

PRAMASA, n. g.

Male with the costal margin of fore wing regularly arched; exterior margin oblique, convex below the apex and slightly angular hindward; posterior margin very convex in middle; with a very large broad sericeous brand. Hind wing almost round, exterior margin slightly uneven.

PRAMASA MITRA. (Plate XXXI. fig. 8, ♂.)

Euplœa mitra, Moore, Catal. Lep. Mus. E.I. C. i. p. 127, ♂ (1857); Butler, P. Z. S. 1866, p. 299; Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Seychelle Islands.

The female of this extraordinarily marked species has the markings similar to the male. Both sexes are in the collection of Messrs. Godman and Salvin.

TAGATA, n. g.

Fore wing with the costal margin nearly straight, apex convex, exterior margin oblique, posterior margin in male regularly convex to the end, and with a lengthened broad sericeous brand. Hind wing short, broad; exterior margin oblique, abdominal margin long.

TAGATA ABJECTA.

Euplœa abjecta, Butler, Proc. Zool. Soc. 1866, p. 299; Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Pelew Islands.

The habitat of this insect is not the Philippines as stated in the description. Mr. G. Semper, of Altona, from whom the type specimens described by Mr. Butler were originally obtained, informs me that these specimens were collected in the Pelew Islands.

PRAMESTA, n. g.

Fore wing triangular, arched at the base, apex slightly rounded, exterior margin oblique, waved, posterior margin slightly convex; sericeous brand long, slender. Hind wing broad, exterior margin waved.

PRAMESTA TOBLERI.

Euplœa tobleri, Semper, Verh. nat. Unt. Hamburg, iii. p. 107 (1878).

Both sexes black: fore wing with a broad white macular oblique subapical band, a small spot above end of the cell, threee on middle of exterior margin, and in the female two between the middle and lower medians. Hind wing with a broad white streak between the veins below the cell from abdominal margin, decreasing in length to middle of the disk; the streaks between the medians cleft at their end; a row of six small white spots on middle of exterior margin.

Expanse $3\frac{1}{4}$ to $3\frac{1}{2}$ inches.

Hab. Philippines (Luzon). In coll. G. Semper.

RASUMA, n. g.

Fore wings short, very broad in both sexes, triangular; exterior margin slightly oblique, convex; posterior margin in male very convex externally, and with a lengthened broad sericeous brand. Hind wing broad and short.

Type *R. violetta.*

1. RASUMA VIOLETTA.

Calliplœa violetta, Butler, Ann. Nat. Hist. ser. 4, xviii. p. 242 (1876).

Euplœa violetta, Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. New Guinea (Port Moresby).

2. RASUMA ORDINATA, n. sp.

Allied to *R. violetta.* Fore wing in male with a submarginal row of nine small distinct purplish-white spots, and eight spots in the female: hind wing without spots.

Expanse $2\frac{3}{4}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

3. Rasuma guerini.

Euplœa guerinii, Felder, Reise Novara, Lep. ii. p. 332 (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. Aru; New Guinea (Port Moresby).

4. Rasuma denticulata, n. sp.

Near to *R. ordinata*. Fore wing comparatively longer, the sericeous brand narrower, the submarginal spots, eight in the male and nine in the femâle, are less distinct, narrower, and the three lower spots dentate.

Expanse 3 inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

5. Rasuma bipunctata, n. sp.

Allied to *R. guerini*. Fore wing with the subapical spots less distinct, the fourth and fifth spots oval and only half the size. Hind wing with two smaller upper submarginal spots.

Expanse, ♂ ♀ $2\frac{3}{4}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

6. Rasuma dolosa.

Euplœa dolosa, Butler, Proc. Zool. Soc. 1876, p. 765, pl. 77. fig. 1, ♂; Journ. Linn. Soc., Zool. xiv. p. 300.

Hab. New Guinea (Port Moresby). Yule II; N. Guinea; Collected by James fide Butler

Note. The female of *R. dolosa* has the subapical spots of the same size as those in the male.

The insect described by Mr. Butler as the female of *R. dolosa* belongs to *R. pleiadis*.

7. Rasuma pleiadis, n. sp.

Euplœa dolosa, Butler, Proc. Zool. Soc. 1876, p. 765, ♀.

Differs from *R. siderea* in being smaller. Fore wing with a slender sericeous brand of half its width, fourth and fifth subapical spots longer and narrower, the male also having three smaller spots beneath the fifth.

Expanse, ♂ ♀ $2\frac{1}{2}$ inches. The ♀ came from Yule I fide Butler

Hab. New Guinea (Port Moresby). In coll. British Museum.

8. Rasuma louisa, n. sp.

Near *R. pleiadis*. Fore wing with the larger submarginal spots of a blunt oval shape, the three lower spots more distinct, the upper one being larger and the middle one not entire in the male; these three spots in the female are also larger, the middle one entire and the largest.

Expanse $2\frac{1}{2}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

9. Rasuma siderea, n. sp.

Near to *R. astræa*. Fore wing with a much broader sericeous

brand, the subapical spots very prominent and with clearly defined edges, the fourth and fifth spots shorter and more regularly cordate in shape, the two lower spots distinct.

Expanse, ♂ $2\frac{8}{12}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

10. Rasuma astræa, n. sp.

Near to *R. dolosa*, Butler. Fore wing comparatively shorter and broader, with similarly disposed subapical spots, all of which are more distinctly defined and somewhat larger, those of the female being much larger than in the female *R. dolosa*; the sericeous brand of the male is one third less in width.

Expanse, ♂ ♀ $2\frac{3}{4}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

11. Rasuma stella, n. sp.

Allied to *R. dolosa*. Comparatively smaller; the subapical spots on fore wing similarly disposed, but more distinct, slightly larger, and more oval in shape in both sexes.

Expanse $2\frac{1}{2}$ inches.

Hab. New Guinea (Port Moresby). In coll. British Museum.

Chirosa, n. g.

Fore wing elongated, narrow. Male with the exterior margin very oblique, posterior margin slightly convex; with a broad sericeous brand, which is situated nearer the outer border. Hind wing narrow, triangular, the apex somewhat extended.

Type *C. brenchleyi*.

1. Chirosa brenchleyi.

Euplœa brenchleyi, Butler, Ann. Nat. Hist. ser. 4, v. p. 357 (1870); Journ. Linn. Soc., Zool. xiv. p. 301; Brenchley's 'Cruise of the Curaçoa,' p. 464, pl. 46. f. 1–4 (1873) ♂ ♀.

Hab. Solomon Islands.

2. Chirosa eurypon.

Euplœa eurypon, Hewitson, Exotic Butt. ii. *Eupl.* pl. i. fig. 3 (1858), ♂; Butler, P. Z. S. 1866, p. 286; Journ. Linn. Soc., Zool. xiv. p. 301. This species has no brand in the ♂♂.

Hab. Ké Island (B.M.); Ceram (*Godman*).

3. Chirosa vicina.

Euplœa vicina, Felder, Reise Novara, Lep. ii. p. 337 (1867).

Hab. Aru. ♂ has no brand only

4. Chirosa morosa.

Euplœa morosa, Butler, Proc. Zool. Soc. 1866, p. 282, fig. 2; Journ. Linn. Soc., Zool. xiv. p. 301.

Euplœa dalmannii, Felder, Reise Novara, Lep. ii. p. 332 (1867).

Hab. Gilolo; Halmaheira.

5. Chirosa pierretii.

Euplœa pierretii, Felder, Reise Novara, Lep. ii. p. 331 (1867); Butler, Journ. Linn. Soc., Zool. xiv. p. 301.

Euplœa melina, Oberthür, Ann. Mus. di Storia Nat. Genova, 1877, p. 456.

Hab. Waigiou, Port Moresby, New Guinea.

6. Chirosa lapeyrousei.

Euplœa lapeyrousei, Boisduval, Voy. Astrolabe, Lép. p. 97, ♂ (1832).

Hab. Bouru (*Boisd.*). In coll. C. Oberthür.

The type specimen of this species is much like *C. pierreti*, excepting that the sericeous streak is narrower and longer. On the underside the discal spots are slightly larger.

Mestapra, n. g.

Differs from typical *Chirosa* in the fore wing being broader, the exterior margin less oblique and more convex, the posterior margin also more convex, the sericeous brand very large and broad, being nearly four times the size of that in *Chirosa*: hind wing broader and more convex externally.

Type *M. fraudulenta*.

1. Mestapra eurianassa.

Euplœa eurianassa, Hewitson, Exot. Butt. ii. p. 12, *Eupl.* pl. 1. fig. 3, ♂ (1858).

Hab. New Guinea.

2. Mestapra torvina.

Euplœa torvina, Butler, Proc. Zool. Soc. 1875, p. 611; id. Journ. Linn. Soc., Zool. xiv. p. 301.

Hab. New Hebrides (Aneiteum, Lifu).

3. Mestapra paykullei.

Euplœa paykullei, Butler, Ann. Nat. Hist. ser. 4, xviii. p. 241 (1876); Journ. Linn. Soc., Zool. xiv. p. 301.

Hab. New Hebrides (Vate, Aneiteum, Mota).

4. Mestapra fraudulenta.

Euplœa fraudulenta, Butler, Ann. Nat. Hist. ser. 5, x. p. 41, ♂ (1882).

Hab. Solomon Islands.

C. *No sexual mark on fore wing. Hind wing with a glandular patch.*

Genus TREPSICHROIS.

Trepsichrois, Hübner, Verz. bek. Schmett. p. 16 (1816); Butler, Journ. Linn. Soc. Zool. xiv. p. 296 (1878).

Euplœa (*Trepsichrois*), Marshall & de Nicéville, Butt. of India, p. 74 (1882).

Eudæmon, Dalmann, Billb. Enum. Ins. p. 76 (1820).

Male. Fore wing elongated triangular; apex prolonged and slightly rounded, exterior margin very oblique, uneven, somewhat concave in the middle; posterior margin very slightly convex; upper discocellular inwardly oblique, acutely bent before lower radial, emitting a short spur within the cell from the angle: hind wing with a very small pale discoidal glandular patch.

Larva of *T. claudia* with four pairs of long fleshy filaments.

Type *T. claudia*.

1. TREPSICHROIS LINNÆI. (Plates XXIX. fig. 4, ♀, & XXX. fig. 1, ♂.)

Papilio midamus (part.), Linn. Mus. Lud. Ulr. p. 251 (1764); Fabricius, Syst. Ent. p. 479; Spec. Ins. ii. p. 52; Ent. Syst. iii. i. p. 39.

Danais midama (part.), Godart, Enc. Méth. ix. p. 172 (1819).

Euplœa midamus, Doubleday & Hewits. D. Lep. p. 87; Moore, Cat. Lep. Mus. E.I. C. i. p. 183; Butler, Catal. Fabrician Lep. B. M. p. 2; P. Z. S. 1866, p. 294; Kirby, Catal. D. Lep. p. 15; Aurivillius, Kongl. Vetens. Akad. Handlingar, 1882, p. 61.

Trepsichrois midamus, Butler, Journ. Linn. Soc., Zool. xiv. p. 297 (1878); Distant, Rhop. Malayana, p. 24, pl. 2. f. 8, 9, ♂ ♀.

Euplœa (*Trepsichrois*) *midamus*, Marshall & de Nicéville, Butt. of India, p. 74, pl. 8. fig. 13, ♂ ♀ (1882).

Ehret, Plantæ et Papil. pl. 3 (1748), *male*.

Kleeman, Beitr. Nat. Insecten, i. p. 69, pl. 9. f. 1, 2 (1792), *female*.

Hab. N.W. & E. Himalayas, Khasia, British Burmah, Malay peninsula, Penang, Sumatra, Siam, Formosa.

From the above references it will be seen that the *P. midamus* of Linnæus has hitherto been identified with this species. This erroneous determination has been caused by Linnæus himself referring, in his original description of *P. midamus* (Syst. Nat. 1758, p. 470), to Ehret's figure on plate iii. as well as to that on his plate xi., and in the Mus. Ulricæ, p. 251, therein supplementing his description of *P. midamus* with that of the present insect.

For true *P. midamus*, Linn., see below, p. 312.

2. TREPSICHROIS CLAUDIA.

Papilio claudius, Fabricius, Gen. Ins. p. 263 (1777); Mant. Ins. p. 25 (1787); Ent. Syst. iii. i. p. 40 (1793), ♀; Herbst, Natur. Schmett. vi. p. 17, pl. 120. f. 5.

Danais claudia, Godart, Enc. Méth. ix. p. 180.

Trepsichrois claudia, Butler, Journ. Linn. Soc., Zool. xiv. p. 296 (1878).

Euplœa midamus, var. *claudius*, Butler, Catal. Fabr. Lep. B. M. p. 2.

Papilio basilissa, Cramer, Pap. Exot. iii. pl. 266. f. C ♀ (1780).

Trepsichrois basilissa, Hübner, Verz. bek. Schmett. p. 16.

Euplœa mulciber, Zink.-Somm. Nova Acta Acad. Cur. 1831, p. 191 (nec Cramer).

Papilio midamus, Sulzer, Insecten, pl. 16. f. 4, ♂ ♀.

Euplœa midamus, Horsf. Catal. Lep. Mus. E.I. C. pl. 3. f. 10 (1828); Moore, Catal. Lep. Mus. E.I. C. i. p. 83, pl. 4. fig. 10, 10*a* (metam.); Lucas, Lép. Exot. pl. 45. fig. 2, ♂.

Hab. Java.

3. Trepsichrois verhuelli, n. sp.

Female. Darker-coloured than either *T. linnæi* or *T. claudia*: fore wing blacker towards the apex, and with less blue reflections; the spots more prominent and sharply defined; lower cell-spot and the discal series of spots of the same size as those in Malacca and Sumatran females of *T. linnæi*, the marginal series very similar to those in Java female of *T. claudia*, except that the fourth upper spot is much larger and a quarter of an inch long, the lower spots are also more oval in shape, the marginal spots more distinct and ascending to the apex, the pale cell-streak and the streak below the cell more indistinct: hind wing with the streaks between the veins all conspicuously narrower than in either of the above mentioned species, and the marginal spots also smaller.

Expanse 3¼ inches.

Hab. Nias Island, west coast of Sumatra. In coll. British Museum.

4. Trepsichrois mulciber.

Papilio mulciber, Cramer, Pap. Exot. ii. pl. 127. figs. C, D (1777).

Trepsichrois mulcibra, Hübner, Verz. bek. Schmett. p. 16 (1816).

Trepsichrois mulciber, Butler, Journ. Linn. Soc., Zool. xiv. p. 296 (1878).

Euplœa mulciber, Distant, Rhopalocera Malayana, p. 25, pl. 3. f. 1, 2, ♂ ♀ (1882).

Hab. Borneo (Labuan, Sarawak); Billiton; ? Malay peninsula.

5. Trepsichrois diocletia.

Trepsichrois diocletia, Hübner, Samml. exot. Schmett. Bd. iii. pl. f. 3, 4, ♀ (1806–24).

Crastia diocletia, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.

Euplœa megilla, Erichson, Nova Acta Acad. Nat. Cur. xvi. p. 282, pl. 50. fig. 7 (1834), ♀.

Hab. Philippines (Luzon).

6. Trepsichrois tisiphone.

Euplœa tisiphone, Butler, Proc. Zool. Soc. 1866, p. 274, ♂.
Trepsichrois tisiphone, Butler, Journ. Linn. Soc., Zool. xiv. p. 297.
Euplœa semperi, Felder, Reise Novara, Lep. ii. p. 314 (1867).
Hab. Philippines (Mindoro).

7. Trepsichrois kochi, n. sp.

Trepsichrois kochii, Semper, MS.

Male. Fore wing violet-black, brilliantly glossed with ultramarine blue, a large greyish-blue spot at lower end of the cell, six discal spots, seven submarginal spots, and a marginal row of small spots; hind wing similar to that of *T. claudia*.

Expanse $3\frac{1}{4}$ inches.

Hab. Philippines (Negros and Guimaras). In coll. G. Semper and F. Moore.

8. Trepsichrois visaya.

Euplœa visaya, Semper, MS.

Hab. Philippines (Samar, Leyte, Bohol). In coll. Messrs. Godman and Salvin.

9. Trepsichrois mindanaoensis.

Euplœa mindanaoensis, Semper, MS.

Hab. Philippines (Mindanao). In coll. G. Oberthür.

Glinama n. g.

Male. Fore wing long, costa straight at the base and slightly arched towards the end, apex acutely convex; exterior margin long, very oblique and slightly convex; posterior margin short and convex. Hind wing short, broad, costa nearly straight, apex slightly acute; exterior margin very convex and waved, abdominal margin short; costal border greyish white; with a discoidal ochreous glandular patch.

Glinama euctemon.

Euplœa euctemon, Hewitson, Exotic Butt. iii. *Eupl.* pl. 2. f. 2, ♂ (1866).

Hab. Menado. Hewitson coll., British Museum.

Genus Euplœa.

Euplœa, Fabricius, Illiger's Mag. vi. p. 280 (1807)

Macroplœa, Butler, Journ. Linn. Soc., Zool. xiv. p. 292 (1878); Moore, Lep. of Ceylon, i. p. 9 (1880).

Euplœa (*Macroplœa*), Marshall and de Nicéville, Butt. of India, p. 71 (1882).

Wings very large and broad. Male with the fore wing elongated and quadrate; apex acuminate; exterior margin oblique; posterior margin convex at the angle, very convex in the middle, and

extremely oblique thence to the base; cell very broad; discocellulars concave, discoidal spur obsolete: hind wing triangular; the costal margin long, apex somewhat angular, exterior margin regularly convex; with a large oval pale upper discoidal glandular patch.

Type *E. corus*, Fabr.

Note.—Hübner (Verz. p. 16), Doubleday (Genera D. Lep. p. 88), Scudder (Hist. Sketch of Generic Names of Butterflies, p. 172), Kirby (Syn. Catal. p. 10), and Butler (Linn. Journ., Zool. xiv. p. 291) have each taken the *P. core* of Cramer to be the same species as the *P. corus* of Fabricius, both Mr. Scudder and Mr. Butler citing *core* as the typical representative of the Fabrician genus *Euplœa*. Mr. Butler, however, though having previously (Catal. Fabrician Lep. in British-Museum Collection, p. 1, 1869) noted that the *P. corus* of Fabricius had no connexion with the *P. core* of Cramer, and referred the former species to a local form of the female of *Euplœa phœnareta*, subsequently overlooked this important fact in his revision of the group published in the 'Linnean Journal,' wherein the *P. core* of Cramer is cited as typically representing the genus *Euplœa*. This erroneous identification I myself followed in the recently published part of the 'Lepidoptera of Ceylon,' i. p. 11. Having since gone more fully into the study of the entire group of these interesting Butterflies, the distinction of the two above-cited species (*corus* and *core*) became apparent to me, the comparison of the descriptions resulting in the determination that the Fabrician species *corus* is identical with the female of *Macroplœa elisa*, a totally different insect and pertaining to a different section of the group, from that of the *core* of Cramer.

1. Euplœa phœbus.

Euplœa phœbus, Butler, Proc. Zool. Soc. 1866, p. 270.

Macroplœa phœbus, Butler, Journ. Linn. Soc., Zool. xiv. p. 292 (1878).

Euplœa castelnaui, Felder, Reise Novara, Lep. ii. p. 315, ♀ (1867); Distant, Rhopalocera Malayana, p. 24, pl. 2. f. 6, ♀.

Euplœa (*Macroplœa*) *castelnaui*, Marshall and de Nicéville, Butt. of India, p. 72 (1882).

Hab. Assam (Cherrapunji), British Burmah, Malay peninsula, Penang, Kar Nicobar, Sumatra, Java.

2. Euplœa corus.

Papilio corus, Fabricius, Ent. Syst. iii. p. 41 (1793), ♀.

Euplœa corus, Fabr. Illiger's Mag. vi. p. 280 (1807).

Danais cora, Godart, Enc. Méth. ix. p. 178.

Euplœa elisa, Butler, Proc. Zool. Soc. 1866, p. 270.

Macroplœa elisa, Butler, Journ. Linn. Soc., Zool. xiv. p. 293; Moore, Lep. of Ceylon, i. p. 9, pl. 5. f. 2.

Euplœa (*Macroplœa*) *elisa*, Marshall and de Nicéville, Butt. of India, p. 72, pl. 8. f. 14, ♂ (1882).

Hab. Ceylon.

3. Euplœa gyllenhali.

Euplœa gyllenhalii, Lucas, Rev. Zool. 1853, p. 316, ♂.

Hab. Java. In coll. Paris Museum.

The type specimen of *E. gyllenhalii* is very closely allied to both *E. corus* and to *E. phœbus*; but it differs in having comparatively narrower wings, the markings above approaching more to those of *E. phœbus*.

Owing to M. Lucas omitting to describe the discal patch on the hind wing in his description of this species, it has subsequently been considered identical with the *E. ochsenheimeri*, Moore.

4. Euplœa drucei, n. sp.

Male. Comparatively larger than *E. phœbus* and of a brighter purplish-brown tint; fore wing longer and broader, with the marginal spots more slender, the submarginal also smaller, the discal series much more slender and indistinct, the cell-spot also indistinct; hind wing with all the spots smaller.

Female. Darker, and with all the markings less distinct than in the same sex of *E. phœbus*.

Expanse, ♂ $4\frac{5}{8}$, ♀ $5\frac{1}{4}$ inches.

Hab. Siam (Chentaboon, *Layard*). In Banksian Collection, British Museum, and Messrs. Godman and Salvin's collection.

5. Euplœa grandis, n. sp.

Male. Allied to *E. drucei*: fore wing comparatively longer and narrower, with the discal series of spots narrow, elongated, and distinct, the submarginal row composed of very small dentate spots, the marginal spots minute and almost obsolete; hind wing with three upper series of spots, the discal series largest.

Expanse, ♂ $5\frac{1}{4}$ inches.

Hab. ——? In coll. G. Semper.

6. Euplœa butleri, n. sp.

Male and Female. Smaller than *E. phœbus*. Male darker purplish violet-brown, with violet-blue reflections in some lights; the discal and submarginal row of spots of a purplish-violet tint, much smaller and more distinctly formed than in *E. phœbus*; the discal and marginal spots also much smaller; the cell-spot very small and indistinct: hind wing more triangular in form, with the discoidal patch duller-coloured, the spots much smaller.

Female. Darker than in *E. phœbus*, and all the spots on both wings smaller.

Expanse, ♂ 4, ♀ $4\frac{1}{4}$ inches.

Hab. Borneo (*Lowe*). In coll. Messrs. Godman and Salvin.

A male specimen of this species labelled "Malacca" is in the collection of G. Semper of Altona. This latter locality, however, is probably incorrect.

7. Euplœa godmani, n. sp.

Male. Differs from *E. butleri* in being larger and paler in colour: fore wing with the marginal and submarginal row of spots very much more prominent and almost white in tint, the marginal series being somewhat larger and the submarginal much smaller, the latter series without any ill-defined inner portion; the discal series is also smaller and less distinct than in *E. butleri*: hind wing with all the spots comparatively larger and more prominent.

Female darker than same sex of *E. butleri*, markings more prominent than in male.

Expanse, ♂ $4\frac{1}{4}$, ♀ $4\frac{3}{4}$ inches.

Hab. Sandakan, N. Borneo (*Pryer*). In colls. Messrs. Godman and Salvin and H. G. Smith.

8. Euplœa phænareta.

Papilio phœnareta, Schaller, Naturforscher, xxi. p. 177, pl. 5. f. 1, 2 (1785), ♂.

Euplœa phœnareta, Kirby, Trans. Ent. Soc. Lond. 1869, p. 358.

Macroplœa phœnareta, Butler, Journ. Linn. Soc., Zool. xiv. p. 292.

Papilio midamus, Cramer, Pap. Exot. iii. pl. 266. f. A, B, ♀, nec Linn. (1782).

Papilio affinis, Gmelin, Syst. Nat. iv. p. 2289 (1788–91); Zschach, Mus. Lesk. Ent. p. 89. no. 46.

Trepsichrois alea, Hübner, Verz. bek. Schmett. p. 16 (1816).

Danais prothoe, Godart, Enc. Méth. ix. p 177 (1819)

? *Euplœa pavettæ*, Zinken-Sommer, Nova Acta Acad. Nat. Cur. xv. p. 189 (1831).

Seba, Thesaurus, iv. pl. 29. f. 13.

Hab. Amboina, Ceram.

9. Euplœa semicirculus.

Euplœa semicirculus, Butler, Proc. Zool. Soc. 1866, p. 269, f. ♂.

Macroplœa semicirculus, Butler, Journ. Linn. Soc., Zool. xiv. p. 292.

Euplœa cuvieri, Felder, Reise Novara, Lep. ii. p. 315, pl. 39. f. 1, 2, ♂ (1867).

Female. Somewhat smaller than the same sex of *E. phœnareta*. Both wings with an intense purplish-blue tint in some lights: fore wing with a recurved submarginal row of purplish-white spots, smaller than those in *E. phœnareta*, the four upper being minute; two blue streaks on the costa above end of the cell; and a discal curved row of five purplish-white spots, the three upper being slender; a small speckled spot also within lower end of the cell: hind wing with a submarginal and marginal upper series of whitish spots.

Expanse, ♀ 5 inches.

Hab. Gilolo, Amboina, Bouru (*Wallace*). In coll. British Museum and that of H. G. Smith.

10. EUPLŒA UNIBRUNNEA.

Euplœa unibrunnea, Salvin and Godman, Proc. Zool. Soc. 1877, p. 141, ♂ ; P. Z. S. 1882, p. 754, ♀.

Hab. Duke-of-York Island ; New Ireland.

11. EUPLŒA BROWNI.

Euplœa brownii, Salvin and Godman, Proc. Zool. Soc. 1877, p. 142, pl. 22. f. 1, 2.

Hab. Duke-of-York Island.

Genus CALLIPLŒA.

Calliplœa, Butler, Trans. Ent. Soc. 1875, p. 1.

Euplœa (*Calliplœa*), Marshall and de Nicéville, Butt. of India, p. 73 (1882).

Wings small, short, broad. Male with the fore wing somewhat quadrate ; hind margin convex in the middle and thence very oblique to the base ; cell broad ; upper discocellular bent near each end, lower outwardly oblique ; inner spur obsolete : hind wing with a pale oval discoidal glandular patch.

Type *C. darchia.*

1. CALLIPLŒA LEDERERI.

Euplœa ledereri, Felder, Wien. ent. Monats. iv. p. 397 (1860); Reise Novara, Lep. ii. p. 317, pl. 40. f. 5, 6 (1867) ; Distant, Rhopalocera Malayana, p. 26, pl. 2. f. 10.

Calliplœa ledereri, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.

Euplœa inquinata, Butler, Proc. Zool. Soc. 1866, p. 291 & f. 2 (p. 288).

Euplœa (*Calliplœa*) *ledereri*, Marshall and de Nicéville, Butt. of India, p. 73 (1882).

Hab. Malay peninsula (Province Wellesley, Perak, Malacca) ; Sumatra.

2. CALLIPLŒA MAZARES.

Euplœa mazares, Moore, Catal. Lep. Mus. E.I. C. i. p. 128 (1857).

Calliplœa mazares, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.

Hab. Java.

3. CALLIPLŒA ARISTOTELIS, n. sp.

Euplœa aristotelis, Boisd. MS.

Allied to *C. mazares*. Male duller-coloured, with similarly disposed but smaller markings on fore wing. Female duller brown in tint, with paler margins, and not suffused with violet-blue ; fore wing with a curved submarginal series of six minute white spots, all being of equal size ; hind wing with small indistinct upper submarginal spots.

Expanse $2\frac{1}{2}$ to $2\frac{3}{4}$ inches.

Hab. Sandakan, N. Borneo (*Pryer*). In coll. W. L. Distant and C. Oberthür.

4. Calliplœa mariesis, n. sp.

Allied to *C. mazares*. Male uniformly much darker-coloured in both wings; fore wing with the marginal spots twice the size, and all with inner blue border; hind wing with smaller but more prominent bluish-white submarginal spots, these spots extending to anal angle.

Expanse, ♂ $2\frac{1}{4}$ inches.

Hab. Lu Shan Mountains, Kinkiang, N. China. In coll. British Museum.

5. Calliplœa pollita.

Euplœa pollita, Erichson, Nova Acta Acad. Nat. Cur. xvi. p. 282, pl. 50. f. 6 (1834).

Calliplœa pollita, Butler, Journ. Linn. Soc., Zool. xiv. p. 296.

Hab. Philippines.

6. Calliplœa monilis, n. sp.

Allied to *C. mazares*. Wings comparatively broader and shorter, the colour similar but darker; fore wing with the submarginal row of spots very much larger in both sexes, and all with broad greyish-blue inner border; hind wing with very prominent whitish upper submarginal spots.

Expanse, ♂ $2\frac{1}{2}$, ♀ $2\frac{3}{4}$ inches.

Hab. Philippines (Mindanao). In coll. G. Semper and F. Moore.

7. Calliplœa engrammelli, n. sp.

Euplœa engrammellii, Boisd. MS.

Female. Near to *C. darchia*. Upperside reddish-purple brown; fore wing with a submarginal upper row of very small bluish-white spots, smaller in size than those of *C. striata*; hind wing with very faintly defined upper submarginal spots. Cilia of both wings entirely brown.

Expanse $2\frac{7}{8}$ inches.

Hab. Gilolo (*Wallace*). In coll. H. G. Smith.

8. Calliplœa kirschi, n. sp.

Female. Near to *C. pumila*. Differs from same sex in being larger; colour similar, but darker basally: fore wing with a submarginal medial series of five small greyish-white spots, the inner area bordering the spots being grey speckled; hind wing with three upper submarginal whitish spots.

Expanse $3\frac{1}{8}$ inches.

Hab. Waigiou (*Wallace*). In coll. H. G. Smith.

9. Calliplœa stephensi.

Euplœa stephensii, Felder, Reise Novara, Lep. ii. p. 320 (1867).

Hab. Mysol.

10. Calliplœa hyems.

Euplœa hyems, Butler, Proc. Zool. Soc. 1866, p. 292, f. 3, p. 288.
Calliplœa hyems, Butler, Journ. Linn. Soc., Zool. xiv. p. 296.
Euplœa arisbe, Felder, Reise Novara, Lep. ii. p. 323 (1867).
Euplœa leda, Boisd. MS.
Hab. Timor.

11. Calliplœa infantilis.

Calliplœa infantilis, Butler, Proc. Zool. Soc. 1876, p. 766, pl. 77. fig. 3; Journ. Linn. Soc., Zool. xiv. p. 296.
Hab. New Guinea.

12. Calliplœa jamesi.

Calliplœa jamesi, Butler, Proc. Zool. Soc. 1866, p. 766, pl. 77. fig. 2; Journ. Linn. Soc., Zool. xiv. p. 296.
Hab. New Guinea (Port Moresby).

13. Calliplœa pumila.

Euplœa pumila, Butler, Proc. Zool. Soc. 1866, p. 290; Kirsch, Mitth. zool. Mus. Dresden, 1877, p. 117.
Calliplœa pumila, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.
Euplœa trimenii, Felder, Reise Novara, Lep. ii. p. 324 (1867).
Hab. New Guinea; Waigiou.

14. Calliplœa salabanda.

Euplœa salabanda, Kirsch, Mitth. zool. Mus. Dresden, i. p. 116, pl. 6. f. 9 (1877), ♂.
Hab. New Guinea.

15. Calliplœa sisamis.

Euplœa sisamis, Kirsch, Mitth. zool. Mus. Dresden, i. p. 117, pl. 6. f. 8, ♂ (1877).
Hab. New Guinea (Jobi).

16. Calliplœa doryca.

Calliplœa doryca, Butler, Journ. Linn. Soc., Zool. xiv. p. 295 (1878), ♀.
Hab. Dorey.

17. Calliplœa saundersi.

Euplœa tulliolus, var. *saundersii*, Butler, P. Z. S. 1866, p. 291.
Euplœa saundersii, Felder, Reise Novara, Lep. ii. p. 322 (1867).
Calliplœa saundersii, Butler, Journ. Linn. Soc., Zool. xiv. p. 296 (1878).
Hab. Aru Island.

18. CALLIPLŒA HOPFFERI.

Euplœa hopfferi, Felder, Reise Novara, Lep. ii. p. 323, pl. 41. fig. 1 (1867).

Hab. Aru Island.

19. CALLIPLŒA NIVEATA.

Calliplœa niveata, Butler, Trans. Ent. Soc. 1875, p. 2; Journ. Linn. Soc., Zool. xiv. p. 296.

Euplœa goezi, Boisd. MS.

Hab. Australia (Queensland, Cape York, Fitzroy Island).

20. CALLIPLŒA TULLIOLUS.

Papilio tulliolus, Fabricius, Ent. Syst. iii. 1, p. 41 (1793); Donovan, Nat. Rep. ii. pl. 55. f. 1.

Danais tulliola, Godart, Enc. Méth. ix. p. 181; Macleay, King's Austral. ii. p. 461.

Euplœa tulliolus, Butler, Catal. Lep. Fabr. B. M. p. 2; Semper, Mus. Godeffroy, xiv. Lep. p. 142.

Calliplœa tulliolus, Butler, Journ. Linn. Soc., Zool. xiv. p. 296.

Hab. N. Australia (Rockingham Bay, Port Stephen); Frankland Isles; Aneiteum; Erromango.

21. CALLIPLŒA DARCHIA.

Danais darchia, Macleay, King's Austr. ii. p. 462 (1827).

Euplœa darchia, Doubleday & Hewits. Gen. D. Lep. p. 87.

Calliplœa darchia, Butler, Trans. Ent. Soc. 1875, p. 39; Journ. Linn. Soc., Zool. xiv. p. 296.

Hab. Australia.

22. CALLIPLŒA PRIAPUS.

Euplœa priapus, Butler, Proc. Zool. Soc. 1866, p. 291, pl. 29. fig. 2.

Calliplœa priapus, Butler, Journ. Linn. Soc., Zool. xiv. p. 296.

Hab. Australia (Port Essington, New Holland).

23. CALLIPLŒA TURNERI.

Calliplœa turneri, Butler, Journ. Linn. Soc., Zool. xiv. p. 296 (1878), ♀.

Hab. Darnley Island.

24. CALLIPLŒA SERIATA.

Euplœa seriata, Herr.-Schäffer, Stettin. ent. Zeit. 1869, p. 69.

Calliplœa seriata, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.

Hab. Vanua Valava; Moala Island; Maré, Loyalty Islands.

25. CALLIPLŒA ADYTE.

Euplœa adyte, Boisduval, Bull. Ent. Soc. France (1859), p. 156, ♂.

Hab. New Caledonia (*Boisd.*); Loyalty Islands (B.M.).

26. CALLIPLŒA FORSTERI.

Euplœa forsteri, Felder, Reise Novara, Lep. ii. p. 322 (1867).

Hab. Fiji Islands.

D. *One "sexual mark" on fore wing. Hind wing with a glandular patch.*

DANISEPA, n. g.

Euplœa (*Salpinx*, sect. C, part.), Marshall & de Nicéville, Butt. of India, p. 59 (1882).

Male with a narrow lengthened triangular fore wing, the apex convex, posterior margin lengthened and but slightly convex, with a short broad blue sericeous brand; first subcostal branch free from subcostal; cell lengthened; discocellulars recurved; submedian recurved and running near the margin; sericeous streak short, broad, blue. Hind wing lengthened, anterior margin almost straight; a discoidal glandular patch of moderate size.

Type *D. rhadamanthus*.

1. DANISEPA RHADAMANTHUS.

Papilio rhadamanthus, Fabricius, Ent. Syst. iii. p. 42, ♂ (1793); Jones, Icones, pl. 45. fig. 2.

Salpinx rhadamanthus, Butler, Journ. Linn. Soc., Zool. xiv. p. 294.

Euplœa (*Salpinx*) *rhadamanthus*, Marshall & de Nicéville, Butt. of India, p. 69, pl. 7. f. 11, ♂ ♀ (1882).

Danais rhadamia, Godart, Enc. Méth. ix. p. 180.

Hab. India (Sikkim, Nepal, Khasia).

2. DANISEPA DIOCLETIANUS.

Papilio diocletianus, Fabricius, Ent. Syst. iii. p. 40, ♀ (1793).

Salpinx diocletianus, Butler, Journ. Linn. Soc., Zool. xiv. p. 294.

Danais diocletia, Godart, Enc. Méth. ix. p. 181 (1819).

Euplœa diocletianus, Butler, Catal. Fabr. Lep. B. M. p. 2; Distant, Rhopalocera Malayana, p. 28, pl. 4. f. 4, 5, ♂ ♀.

Euplœa (*Salpinx*) *diocletianus*, Marshall & de Nicéville, Butt. of India, p. 71 (1882).

Hab. Upper Tenasserim; Malay peninsula; Penang; Singapore; Cochin China; Sumatra.

3. DANISEPA ALCIDICE.

Danais alcidice, Godart, Enc. Méth. ix. p. 180 (1819).

Salpinx alcidice, Butler, Journ. Linn. Soc., Zool. xiv. p. 291.

Trepsichrois thoosa, Hübner, Samml. exot. Schmett. ii. pl. 8, ♂ (1820–21).

Hab. Java.

4. Danisepa lowei.

Salpinx lowei, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Hab. Borneo; ? Billiton.

Tabada, n. g.

Wings moderately short, broad. Fore wing in male triangular, costal margin convex, apex rather acute; exterior margin oblique, even; posterior margin slightly convex, angle acute; with a scarcely distinguishable short scaly brand; first subcostal anastomosed to costal; discocellulars concave; cell shorter than in *Danisepa rhadamanthus*; the median veins nearer together and straighter, submedian also straight and further above the margin. Hind wing subconical, with a small pale ochreous discoidal glandular patch.

Tabada hyacintha.

Euplœa hyacinthus, Butler, P. Z. S. 1866, p. 296, pl. 29. fig. 5.

Salpinx hyacinthus, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Euplœa hewitsoni, Felder, Reise Novara, Lep. ii. p. 326, pl. 40. fig. 7 (1867), nec Butler.

Hab. Celebes.

Satanga, n. g.

Wings in male large and broad. Fore wing triangular, costa arched in the middle, apex acuminate; exterior margin very oblique and even; hind margin short, very slightly convex in middle; with a very indistinct small sericeous brand; first branch of subcostal free; discocellulars slightly recurved. Hind wing subconical, exterior margin slightly uneven; with a distinct whitish oval discoidal glandular patch.

Satanga eupator.

Euplœa eupator, Hewitson, Exot. Butt. ii. *Eupl.* pl. 1. fig. 1, ♂ (1858), iii. pl. 2. fig. 1, ♀ (1866).

Salpinx eupator, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Hab. Celebes.

Saphara, n. g.

Male. Fore wing elongated, narrow, quadrate; costa almost straight, apex convex; exterior margin very oblique, short and even; hind margin very deeply convex near the base, the outer portion being parallel with the costa; with a small scaly sericeous brand; upper discocellular acutely bent above lower radial, emitting a rather long spur within the cell from the angle. Hind wing very convex externally, outer margin even; with a large dull ochreous discoidal glandular patch.

Female. Fore wing triangular; hind wing less convex externally.

Type *S. treitschkei.*

1. Saphara treitschkei.

Euplœa treitschkei, Boisduval, Voy. Astrol., Lép. p. 98 (1832); Doubleday and Hewits. D. Lep. pl. 11. f. 2, ♂; Butler, P. Z. S. 1866, p. 292; Kirsch, Mitth. zool. Mus. Dresden, 1877, p. 117.

Salpinx treitschkei, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Hab. New Ireland.

2. Saphara biformis.

Salpinx biformis, Butler, Ann. Nat. Hist. ser. 5, x. p. 37, ♂ ♀ (1882).

Hab. Duke-of-York Island.

3. Saphara ænea.

Salpinx œnea, Butler, Ann. Nat. Hist. ser. 5, x. p. 38, ♂ ♀ (1882).

Hab. Solomon Islands.

4. Saphara viridis.

Salpinx viridis, Butler, Ann. Nat. Hist. ser. 5, x. p. 38, ♀ (1882).

Hab. Thursday Island (S. of New Guinea).

5. Saphara lorenzo.

Euplœa lorenzo, Butler, Ann. Nat. Hist. ser. 4, v. p. 359 (1870); Breuchley's Cruise of 'Curaçoa,' p. 466, pl. 47. f. 3, 4 (1873).

Salpinx lorenzo, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Hab. Solomon Islands.

6. Saphara jessica.

Euplœa jessica, Butler, Lep. Exotica, p. 20, pl. 8. f. 3, ♂ (1870).

Hab. Fiji Islands.

7. Saphara erimas.

Euplœa erimas, Godman & Salvin, Proc. Zool. Soc. 1878, p. 733, ♂; id. 1879, p. 156, pl. 15. f. 1, ♂.

Hab. New Ireland.

Selinda, n. g.

Fore wing narrower than in typical *Salpinx*; costa more arched and comparatively longer, apex acute, exterior margin very oblique; hind margin convex in middle; with a very broad short silky-white brand; cell narrower, shorter hindward, the lower end slightly shorter than upper; discocellulars concave, no inner spur. Hind wing subconical, narrower; exterior margin less convex; discoidal glandular patch dull-coloured.

Type *S. mniszechi*.

1. Selinda mniszechi.

Euplœa mniszechii, Felder, Wien. ent. Monats. iii. p. 181, pl. 3. f. 3, ♂ (1859).

Salpinx mniszechii, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. Celebes.

2. SELINDA VOLLENHOVII.

Euplœa vollenhovii, Felder, Reise Novara, Lep. ii. p. 327 (1867); Hopffer, Stettin. ent. Zeit. 1874, p. 28.

Hab. Celebes (Girontalo); Sula (*Wallace*).

3. SELINDA ELEUSINA.

Papilio eleusina, Cramer, Pap. Exot. iii. pl. 266. f. D (1780).

Salpinx eleusina, Hübner, Samml. exot. Schmett. Bd. ii. pl. 9. f. 3, 4, ♀ (1806).

Danais eleusine, Godart, Enc. Méth. ix. p. 177.

Euplœa mazares (part.), Doubleday & Hewits. Gen. D. Lep. p. 87.

Hab. Java.

HIRDAPA, n. g.

Male with short, very broad fore wing; costa much arched, apex acute; exterior margin long, slightly oblique and convex; hind margin deeply convex towards the angle; cell very broad, upper discocellular slightly concave, lower outwardly oblique; lower median and submedian very wide apart, submedian very recurved; with a very short broad sericeous brand. Hind wing very broadly oval, exterior margiu oblique; cell broad; with a large pale ochreons glandular patch.

Type *H. usipetes*.

1. HIRDAPA USIPETES.

Euplœa usipetes, Hewitson, Exot. Butt. ii. *Eupl.* pl. 1. f. 4, ♂ (1858).

Salpinx usipetes, Butler, Journ. Linn. Soc., Zool. xiv. p. 294 (1878).

Hab. Aru Islauds.

2. HIRDAPA ASSIMILATA.

Euplœa assimilata, Felder, Reise Novara, Lep. ii. p. 321, pl. 41. f. 2, 3, ♂ (1867).

Salpinx assimilata, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. Aru Islands; Tijoor.

3. HIRDAPA FRATERNA.

Euplœa fraterna, Felder, Reise Novara, Lep. ii. p. 322, ♂ (1867).

Salpinx fraterna, Butler, Journ. Linu. Soc., Zool. xiv. p. 293 (1878).

Hab. Ké Island.

4. Hirdapa frigida.

Salpinx frigida, Butler, Journ. Linn. Soc., Zool. xiv. p. 293, ♂ (1878).

Hab. N. Ceram.

5. Hirdapa imitata.

Euplœa imitata, Butler, Ann. Nat. Hist. ser. 4, v. p. 359 (1870); Brenchley's Cruise of 'Curaçoa,' p. 466, pl. 47. f. 1, 2, ♂ (1873).

Salpinx imitata, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. Solomon Islands.

Genus Salpinx.

Salpinx, Hübner, Verz. bek. Schmett. p. 17 (1816); Butler, Journ. Linn. Soc., Zool. xiv. p. 292.

Euplœa (*Salpinx*, sect. C, part.), Marshall & de Nicéville, Butt. of India, p. 59 (1882).

Wings short. Fore wing in male very broad, somewhat quadrate, apex acuminate; exterior margin slightly oblique and convex; posterior margin acuminate at the angle, very convex in the middle; cell broad, short; with a short broad blue or silky band. Hind wing broad, anterior margin convexly angular in middle; cell very long; with a large pale-coloured upper discoidal glandular patch of compact scales. Female with longer triangular wings.

Type *S. nemertes*.

1. Salpinx novaræ.

Euplœa novaræ, Felder, Verh. zool.-bot. Gesell. ii. p. 482 (1862); Reise Novara, Lep. ii. p. 317, pl. 39. f. 7, ♂.

Euplœa (*Salpinx*) *novaræ*, Marshall & de Nicéville, Butt. of India, p. 68 (1882).

Hab. Nicobar Isles; Tenasserim. In coll. F. Moore.

2. Salpinx vestigiata.

Euplœa vestigiata, Butler, Proc. Zool. Soc. 1866, p. 281, ♂ only.

Salpinx vestigiata, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Euplœa vestigiata, Distant, Rhop. Malayana, p. 26, pl. 3. f. 6, 7, ♂ ♀ (1882).

Hab. Sumatra (type ♂[1]). In colls. British Museum and F. Moore.

3. Salpinx lazulina, n. sp.

Calliplœa vestigiata, Butler, Trans. Linn. Soc., Zool. 2nd ser. i. p. 533 (1879).

Euplœa vestigiata (part.), Distant, Rhop. Malayana, p. 27.

Differs from typical *S. vestigiata*. *Male*. Fore wing of a darker

[1] On reference to the original register at the British Museum, it has been found that the locality of this species there given is Sumatra, not Java as stated in Mr. Butler's description.

velvety blue-black with a brilliant blue gloss in some lights, the submarginal blue spots larger; on the upper discal area are two short slender blue streaks, the costal spot is smaller, the elongated blue sericeous streak below median vein longer and broader, with a contiguous slender similar short streak below it: hind wing similar, but with slightly more distinct marginal spots.

Female. Fore wing with similar but smaller submarginal paler blue spots; costal spot and less distinct upper discal streaks and two slightly smaller streaks below the median vein: hind wing with more distinct upper submarginal and lower marginal spots.

Expanse, ♂ $3\frac{3}{8}$, ♀ $3\frac{5}{8}$ inches.

Hab. Malacca. In coll. British Museum.

4. Salpinx leucogonys.

Salpinx leucogonys, Butler, Trans. Linn. Soc. 2nd ser. i. p. 536, pl. 68. f. 5, ♀ (1879).

Euplœa (*Salpinx*) *leucogonys*, Marshall & de Nicéville, Butt. of India, p. 69 (1882).

Euplœa vestigata (variety), Distant, Rhop. Malayana, p. 27.

Hab. Malacca. In coll. British Museum.

Male. Fore wing with four very small upper submarginal blue spots, a costal spot, and a short streak below the median vein: hind wing whitish-speckled from anal angle.

5. Salpinx leucostictos.

Papilio leucostictos, Gmelin, Syst. Nat. v. Ins. ii. p. 2289 (1789); Zschach, Mus. Lesk. Ent. p. 90, No. 48.

Euplœa leucostictos, Kirby, Trans. Ent. Soc. Lond. 1869, p. 358.

Danais eunice, Godart, Enc. Méth. ix. p. 177 (1819).

Salpinx eunice, Butler, Journ. Linn. Soc., Zool. xiv. p. 293.

Euplœa vestigiata (part), Butler, P. Z. S. 1866, p. 288, f. 1, ♀.

Hab. Java. In coll. British Museum.

6. Salpinx hobsoni.

Salpinx hobsoni, Butler, Proc. Zool. Soc. 1877, p. 811, ♂.

Hab. N. Formosa. In coll. British Museum.

7. Salpinx dehaani.

Euplœa dehaanii, Lucas, Rev. Zool. 1853, p. 313, ♂.

Euplœa westwoodii, Boisduval, MS., ♂

Allied to *S. eunice* and *S. hobsoni*. *Male.* Fore wing with a submarginal row of bluish spots, a small spot on the costa above end of the cell, a larger spot within lower end of the cell, one beyond it, an elongated spot below the lower median vein, and a very small spot above the latter between the lower and middle median veins: hind wing with a prominent discoidal ochreous patch, pale costal border, and three small whitish submarginal spots.

Expanse $2\frac{3}{4}$ inches.

Hab. Java.

This species, from the type specimen of which the above description is taken, is very like *Calliplœa mazares* and *C. ledereri*; but the latter differs in the markings of the fore wing all being smaller, and in the absence of the lower elongated spot: the hind wing of the two latter species also has no discoidal patch.

8. Salpinx oculata, n. sp.

Male. Allied to *S. nemertes*; smaller in size; colour deeper brown and of a uniform tint. Fore wing with a small bluish-white costal spot above end of the cell, an upper submarginal curved row of six small spots, of which the upper third spot is slightly the largest; a small speckled spot between middle and lower median veins, and a large spot between median and submedian, the latter spot with a grey centre. Hind wing with a well-defined ochreous discoidal patch, and three very small upper submarginal bluish-white spots.

Expanse $2\frac{7}{8}$ inches.

Hab. Philippines (Mindanao). In coll. British Museum.

9. Salpinx bouruana, n. sp.

Female. Upperside very dark purplish violet-brown: fore wing with seven submarginal distinct bluish-white spots, the three upper largest and oval, the lower very small and decreasing in size; a small blue spot on costa above end of the cell, and a distinct blue spot between median and submedian veins: hind wing with a submarginal upper curved series of five decreasing bluish-white spots, the two lowest very small; a small spot at lower end of the cell. Underside brighter purplish violet-brown: fore wing with a complete marginal row of small bluish-white spots placed in proximate pairs between the veins; the submarginal row and the costal and lower discal spot larger and more prominent than on upperside; four small short narrow spots on the disk beyond the cell: hind wing with a complete marginal row of very small bluish-white spots, and a submarginal curved row of ten larger spots; a small blue spot between the lower subcostal and radial.

Expanse $3\frac{3}{4}$ inches.

Hab. Bouru. In coll. Messrs. Godman and Salvin.

Distinguished from Amboina female of *S. pasithea* by its very much darker colour on the upper- and underside, the more prominent white submarginal spots, and the distinct blue costal spot and lower discal spot of the upperside.

10. Salpinx nemertes.

Limnas mutabilis nemertes, Hübner, Samml. exot. Schmett. f. 3, 4, ♂ (1806).

Salpinx nemertes, Hübner, Verz. bek. Schmett. p. 17 (1806).

Euplœa aglidice, Boisduval, Voy. Astrolabe, Lép. p. 96, ♀ (1835).

Euplœa eunice, Butler, P. Z. S. 1866, p. 286, f. 2, ♀.

Hab. Amboina; Ceram. In coll. British Museum.

11. SALPINX STAINTONI.

Euplœa staintoni, Felder, Novara Reise, Lep. ii. p. 319 (1867), ♂ ♀.

Hab. Waigiou.

12. SALPINX PASITHEA.

Euplœa pasithea, Felder, Reise Novara, Lep. ii. p. 318 (1867).

Salpinx pasithea, Butler, Journ. Linn. Soc., Zool. xiv. p. 292 (1878).

Hab. Amboina.

13. SALPINX HERBSTI.

Euplœa herbstii, Boisduval, Voy. Astrolabe, Lép. p. 95, ♂ (1835).

Hab. New Guinea.

14. SALPINX HISME.

Euplœa hisme, Boisduval, Voy. Astr., Lép. p. 95 (1832); Montr. Ann. Sc. Phys. Nat. Lyon, 1856, p. 403; Butler, P. Z. S. 1866, p. 286, f. 1; Kirsch, Mitth. zool. Mus. Dresden, 1877, p. 116.

Salpinx hisme, Butler, Journ. Linn. Soc., Zool. xiv. p. 292 (1878).

Euplœa bernsteini, Felder, Reise Novara, Lep. ii. p. 319 (1867).

Hab. Aru Islands.

15. SALPINX CONSANGUINEA.

Salpinx consanguinea, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. New Hebrides (Aneiteum).

16. SALPINX GRAEFFIANA.

Euplœa graeffiana, Herr.-Schäff. Stett. ent. Zeit. 1869, p. 70, pl. 2. f. 5; id. Exot. Schmett. f. 111 (1869).

Calliplœa græffiana, Butler, P. Z. S. 1876, p. 251.

Salpinx graeffiana, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. New Hebrides (Vaté).

17. SALPINX IPHIANASSA.

Euplœa iphianassa, Butler, P. Z. S. 1866, p. 287, f. 3.

Salpinx iphianassa, Butler, Journ. Linn. Soc., Zool. xiv. p. 293 (1878).

Hab. New Hebrides (Aneiteum).

18. SALPINX PERDITA.

Salpinx perdita, Butler, Ann. Nat. Hist. ser. 5, x. p. 39, ♂ ♀ (1882).

Hab. Duke-of-York Island; New Britain.

19. SALPINX MACLEAYI.

Euplœa macleayi, Felder, Reise Novara, Lep. ii. p. 320 (1867).

Hab. Fiji Islands.

20. Salpinx kadu.

Euplœa kadu, Eschscholtz, Kotzebue's Reise, iii. p. 210, pl. 6. f. 15, *a*, *b*, ♂ (1821).

Danaida eunice, Quoy & Gaimard, Freyc. Voy. p. 555, pl. 83. f. 1, ♂; Guérin, Icon. Règn. Anim., Ins. p. 474, pl. 77. f. 4, ♂.

Hab. Mariana Isles (*Esch.*); Borneo (coll. Brit. Mus.).

21. Salpinx hewitsoni.

Euplœa hewitsonii, Butler, P. Z. S. 1866, p. 295, pl. 30. f. 2, ♀.

Salpinx hewitsonii, Butler, Journ. Linn. Soc., Zool. xiv. p. 293.

Euplœa eunice, Boisduval, Spec. Gén. des Lép. i. pl. 24. f. 1, ♂ (1836); Lucas, Lép. Exot. p. ♂, pl. 45. f. 1, ♂ (nec Godart).

Euplœa rœselii, Boisd. MS., ♂.

Hab. Philippines (isle of Guam).

22. Salpinx depuiseti.

Euplœa depuiseti, Oberthür, Trans. Ent. Soc. Lond. 1879, p. 230, pl. 8 f. 2, ♀.

Hab. Sangir Island. In coll. C. Oberthür and Messrs. Godman and Salvin.

23. Salpinx viola.

Euplœa viola, Butler, P. Z. S. 1866, p. 295, pl. 30. f. 3, ♂.

Salpinx viola, Butler, Journ. Linn. Soc., Zool. xiv. p. 293.

Euplœa westwoodii, Felder, Reise Novara, Lep. ii. p. 316, pl. 40. f. 1, 2, ♂ ♀ (1867).

Hab. Celebes, Macassar.

23 a. Salpinx weberi, n. sp.

Allied to *S. viola*. Somewhat larger in size. Fore wing much less blue-glossed, both the inner and outer series of spots of a uniform blue, the inner series being smaller and consisting only of those above the median vein; and a narrow paler blue silky brand between the lower median and submedian; the outer row are all of a small size, and somewhat dentate in shape, the lowest spot being obsolescent. Hind wing with a submarginal row of very small round spots.

Expanse $4\frac{1}{4}$ inches.

Hab. Celebes. In coll. W. L. Distant.

23 b. Salpinx brandti, n. sp.

Allied to *S. viola*; somewhat smaller in size. Fore wing less blue-glossed, with a discal curved series of six narrow oval bluish-white spots and the lower silky brand, all being much narrower and longer than in *S. viola*, the spot above the brand of the same length as the brand; outer series of blue spots similar in form, but smaller than those in *S. viola*, being composed of scattered scales, and not extending towards the inner row. Hind wing with a similar row of blue spots composed of scattered scales.

Expanse $3\frac{1}{2}$ inches.

Hab. Celebes. In coll. W. L. Distant.

24. Salpinx labreyi, n. sp.

Male. Violet-brown, much paler, and not suffused with blue as in *S. viola.* Fore wing with a pale purplish violet-brown row of submarginal spots, the four upper spots small and round, the two next somewhat oval, the lower geminated; a violet-white spot on costa above end of the cell, followed below by three upper discal large, irregular, oval spots; a violet-brown streak above submedian. Hind wing with a submarginal row of small purplish-violet decreasing spots.

Expanse 4 inches.

Hab. Unknown. In coll. Hewitson, British Museum.

25. Salpinx callithoë.

Euplœa callithoë, Boisduval, Voy. Astrolabe, Lep. p. 93, ♂ (1832).

Macroplœa callithoë, Butler, Journ. Linn. Soc., Zool. xiv. p. 292.

Hab. New Guinea. In coll. M. Oberthür.

26. Salpinx euthoë.

Euplœa euthoë, Felder, Reise Novara, Lep. ii. p. 316 (1867).

Hab. Aru.

27. Salpinx mesocala.

Euplœa mesocala, Vollenhoven, Tijd. voor Ent. 2nd ser. viii. p. 244, pl. 11. f. 1 ♂, 2 ♀ (1873).

Hab. Waigiou.

28. Salpinx althæa.

Euplœa althæa, Semper, Verh. des Vereins natur. Unt. Hamburg, iii. p. 106 (1878).

Hab. Mindanao. In coll. G. Semper.

29. Salpinx meyeri.

Euplœa meyeri, Hopffer, Stett. ent. Zeit. 1874, p. 29.

Hab. Celebes.

Pademma, n. g.

Euplœa (*Salpinx,* sect. B), Marshall & de Nicéville, Butt. of India, p. 59 (1882).

Intermediate in form between *Salpinx* and *Isamia*; differing from *Salpinx* in the fore wing being comparatively narrower, the apex more acute, exterior margin more oblique, and the sericeous brand shorter and broader. From typical *Isamia* the fore wing differs in its shorter and more quadrate form, and in the shortness of the sericeous brand.

Type *P. klugii.*

1. Pademma klugi. (Plate XXXII. fig. 1, ♂.)

Euplœa klugii, Moore, Catal. Lep. Mus. E.I. Co. i. p. 130, ♂ ♀ (1857).

Salpinx klugii, Butler, Journ. Linn. Soc., Zool. xiv. p. 294.
Euplœa (*Salpinx*) *klugii*, Marshall & de Nicéville, Butt. of India, p. 64 (1882).
Euplœa whitei, Boisd. MS., ♂.
Hab. N.E. Bengal. In coll. British Museum and F. Moore.

2. Pademma granti.

Salpinx grantii, Butler, Trans. Ent. Soc. Lond. 1879, p. 2, ♀.
Euplœa (*Salpinx*) *grantii*, Marshall & de Nicéville, Butt. of India, p. 64 (1882).
Hab. Cachar (type). In coll. British Museum.

3. Pademma dharma, n. sp. (Plate XXXII. fig. 2, ♀.)

Female. Fore wing violet-brown glossed throughout with violet-blue, with a bluish-white costal spot above end of the cell, a very slight lower streak beyond the cell, and five upper submarginal spots, of which the three lowest are much elongated and clavate; a distinct spot above the lower median and a streak above the submedian. Hind wing brown, with three small upper submarginal distinct pure white spots, the others pale brown.
Expanse, ♀ $3\frac{3}{4}$ inches.
Hab. Nowgong, Assam (*Span*). In coll. F. Moore.
In pattern of markings on the fore wing this species is more like female *I. grantii*; but in *I. dharma* these are larger and more prominent, and both the submarginal and marginal row is also larger and whiter; the colour of the fore wing is also much paler, and has not the brilliant blue gloss of that species.

4. Pademma augusta, n. sp.

Male. Near to *P. klugii.* Fore wing darker blackish brown throughout, and of a more brilliant glossy blue, which extends to the extreme margins; with a similar bluish-white mark at end of the cell; two very slender streaks beyond, a spot between the lower medians, and an elongated bluish sericeous streak above the submedian; submarginal row of spots smaller, marginal minute and obsolete at upper end. Hind wing with a broad chestnut-brown abdominal area; marginal spots almost obsolete.
Expanse, ♂ $3\frac{1}{2}$ inches.
Hab. Nowgong, Assam (*Span*). In coll. F. Moore.

5. Pademma indigofera, n. sp. (Plate XXXII. fig, 3, ♂.)

Allied to *P. klugii*; differs in being one third less in size. Fore wing uniformly suffused with clear blue throughout the wing; marginal markings similar and prominent; the two streaks beyond the cell shorter, and the small costal spot distinct; sericeous streak short and broader. Hind wing also suffused with clear blue; the discal patch duller-coloured; marginal spots prominent.
Expanse $2\frac{5}{8}$ inches.
Hab. Nowgong, Assam (*Span*). In coll. F. Moore.

6. Pademma imperialis, n. sp.

Nearest to *P. klugii*. *Male* and *female* of the same brilliant glossy blue. Fore wing differs in both rows of marginal spots being comparatively larger, and slightly confluent in the male. Hind wing, in both sexes, with a complete marginal row of small spots, the submarginal row incomplete hindward.

Expanse, ♂ $3\frac{1}{2}$, ♀ 4 inches.

Hab. N.E. Bengal. In coll. British Museum and F. Moore.

7. Pademma illustris.

Salpinx illustris, Butler, Journ. Linn. Soc., Zool. xiv. p. 294, ♂ (1878).

Euplœa (*Salpinx*) *illustris*, Marshall & de Nicéville, Butt. of India, p. 66 (1882).

Euplœa bohemanni, Boisd. MS., ♂.

Hab. Silhet (E. Bengal).

8. Pademma regalis, n. sp.

Allied to *P. illustris*. *Male and female.* Fore wing of the same intense glossy blue; both rows of marginal spots complete to posterior angle. Hind wing also with both rows of marginal spots complete.

Expanse, ♂ $3\frac{2}{8}$, ♀ $3\frac{3}{8}$ inches.

Hab. E. Bengal. In coll. F. Moore.

9. Pademma crassa.

Euplœa crassa, Butler, P. Z. S. 1866, p. 278.

Salpinx crassa, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.

Hab. Siam (coll. Brit. Mus.); Cochin China (*Felder*).

10. Pademma minorata.

Salpinx minorata, Moore, P. Z. S. 1878, p. 695, ♂.

Hab. Island of Hainan. In coll. Messrs. Godman and Salvin.

11. Pademma erichsoni.

Euplœa erichsonii, Felder, Reise Novara, Lep. ii. p. 324 (1867).

Euplœa (*Salpinx*) *erichsonii*, Marshall & de Nicéville, Butt. of India, p. 63 (1882).

Hab. British Burmah (Moulmein). In coll. F. Moore.

Nearest to *P. crassa*. *Male* similar in colour, but darker: fore wing with both marginal rows of spots larger, the spots more elongated, the third, fourth, and fifth upper submarginals slightly confluent with their opposite marginal spots: hind wing with both rows of marginal spots smaller.

Felder gives N. India as his locality for this species (the types of which I have compared), including with it also specimens from Cochin China. These latter, however, refer to the preceding species, *P. crassa*. Felder's type specimen agrees with mine.

12. Pademma pembertoni, n. sp. (Plate XXXII. fig. 6, ♂.)

Allied to *P. erichsonii*; similar, but paler in colour.

Male. Fore wing with both marginal rows of spots smaller and nearly obsolete posteriorly; beyond the cell are two slender short streaks of the same colour as the spots, and a spot also on the costa above end of the cell: hind wing with both marginal rows of spots obsolete towards anal angle.

Female. Fore wing with very minute outer marginal spots, larger oval submarginal spots, the two streaks beyond the cell, and two on lower part of the disk: hind wing with the two marginal rows of spots almost obsolete.

Expanse, ♂ $3\frac{3}{8}$, ♀ $3\frac{7}{8}$ inches.

Hab. Magaree, Pegu (coll. Moore); E. Bengal (?) (coll. Brit. Mus.).

13. Pademma macclellandi, n. sp. (Plate XXXII. fig. 4, ♀.)

Female. Olivaceous brown: fore wing with the basal area darker brown and suffused with violet-blue; a large violet-blue mark at end of the cell, two slender streaks beyond, a large spot between the two lower medians, and a streak above the submedian; a submarginal row of elongated whitish spots, the two upper and lowest being small, and a marginal row of small distinct white spots. Hind wing darker brown basally, with a submarginal and marginal row of small very pale brown spots, the upper submarginal spot being white.

Expanse, ♀ $3\frac{5}{8}$ inches.

Hab. Nowgong, Assam (*Span*). In coll. F. Moore.

14. Pademma uniformis, n. sp.

Male. Allied to *P. crassa.* Fore wing of a more uniform darker tint and basally suffused with a violet-blue tint; marginal row of spots very minute and obsolete anteriorly, the submarginal row of spots small and of uniform size. Hind wing with the marginal row of spots minute and obsolete anteriorly, the submarginal row being obsolete posteriorly.

Expanse $3\frac{1}{2}$ inches.

Hab. E. Bengal. In coll. British Museum.

15. Pademma apicalis, n. sp.

Euplœa crassa, Distant, Rhopalocera Malayana, p. 29, pl. 5. fig. 8, ♂ (1882).

Near to *P. crassa,* but of a more greenish olivaceous colour, contrasting distinctly thereby with the brownish olivaceous of that species: fore wing with a complete marginal row of small spots, the submarginal row composed of five apical spots only; hind wing with both marginal rows of spots small.

Expanse $3\frac{1}{2}$ inches.

Hab. British Burmah (coll. F. Moore); Quedah, Malay peninsula (coll. Distant).

16. Pademma burmeisteri, n. sp.

Euplœa burmeisteri, Boisduval, MS.

Near to *P. crassa*; smaller in size, but of the same colour.

Male with a shorter and more slender sericeous streak, the lower inner marginal row of spots of similar size to the outer row and extending to the posterior margin; hind wing with both rows of marginal spots smaller.

Female. Fore wing with the inner row of spots larger than in the male, and also extending to the posterior margin.

Expanse $2\frac{3}{8}$ inches.

Hab. Saigon, Cochin China; Upper Tenasserim. In colls. Mons. C. Obertbür, F. Moore, and British Museum.

17. Pademma masoni.

Salpinx masoni, Moore, Proc. Zool. Soc. Lond. 1878, p. 823, ♂.

Euplœa (*Salpinx*) *masoni*, Marshall & de Nicéville, Butt. of India, p. 64 (1882).

Euplœa poggei, Boisd. MS.

Hab. British Burmah (Tenasserim). In colls. Brit. Mus. and F. Moore.

18. Pademma sinhala.

Euplœa sinhala, Moore, Ann. Nat. Hist. ser. 4, xx. p. 45 (1877).

Isamia sinhala, Moore, Lep. of Ceylon, i. p. 10, pl. 5. fig. 1, ♂ (1880).

Hab. Ceylon.

19. Pademma kollari. (Plate XXIX. fig. 9, ♂.)

Euplœa kollari, Felder, Reise Novara, Lep. ii. p. 325, ♂ (1867).

Isamia rothneyi, Moore, Ent. Monthly Mag. 1882, p. 34.

Euplœa (*Salpinx*) *sinhala*, Marshall & de Nicéville, Butt. of India, p. 66, pl. 7. fig. 12, ♂ ♀ (1882).

Male. Upperside dark olive-brown; basal area pitchy brown; fore wing with a submarginal row of small whitish spots and a marginal row of smaller spots, both rows decreasing in size towards the costa, and of similar size to those in *C. core* and *C. coroides*; sericeous streak short and broad. Hind wing with a pale flesh-coloured discoidal patch; a submarginal row of oval and a marginal row of smaller whitish spots; both rows also of similar size to those in the species above cited.

Expanse $3\frac{1}{2}$ inches.

Hab. Barrackpore, near Calcutta (*Rothney*); Malabar (*Semper*). In coll. F. Moore.

A single specimen of this species was recently taken at Barrackpore, near Calcutta, by Mr. G. A. J. Rothney, who mistook it for the common *C. core*. Other collectors in the same district doubtless have also been so misled by its resemblance to that common species. Since describing Mr. Rothney's specimen I have had the good

fortune to receive from Dr. Rogenhofer, the Custodian of the Vienna Museum, a drawing of the type specimen of Felder's *E. kollari*, of which the habitat was unknown, and the species hitherto unidentifiable. This drawing is an exact representation of Mr. Rothney's specimen, and proves their specific identity.

The Malabar specimen in Mr. G. Semper's collection, at Altona, is half an inch less in expanse, of a reddish olive-brown colour, and with all the spots on both wings about one half less in size.

Nacamsa, n. g.

Fore wing comparatively narrower than in typical *Isamia*; more triangular in form; costa less arched and posterior margin less convex; upper discocellular with a very short spur emitted within the cell; sericeous brand narrower and shorter. Hind wing narrower; exterior margin less convex; discoidal glandular patch distinct.

Type *N. simillima*.

1. Nacamsa simillima, n. sp.

Isamia simillima, Semper MS.

Olivaceous umber-brown. Pattern of markings like those in *Andasena swainsonii*. Fore wing with five whitish submarginal conjoined spots, a small spot beneath, followed by obsolescent pale brown lower spots; three or four upper marginal minute dots, and one at posterior angle. Hind wing with a creamy-white discoidal patch, a marginal row of small not very prominent whitish spots, and a submarginal row of indistinct pale brown elongated spots which become shorter and whiter anteriorly.

Female. Fore wing with similar but slightly larger markings as in male; hind wing with paler marginal and submarginal spots.

Expanse, ♂ 3, ♀ $3\frac{3}{4}$ inches.

Hab. Philippines (Luzon). In coll. G. Semper and F. Moore.

2. Nacamsa meldolæ, n. sp.

Brighter olivaceous umber-brown than *N. simillima*. Pattern of markings like those in *Andasena lucasii*.

Male and Female. Fore wing with a recurved submarginal series of eight spots, the three upper large and oval, the fourth, fifth and seventh round, the sixth ill-defined, the eighth duplex; a marginal row of small spots. Hind wing with a prominent creamy-white discoidal patch, a marginal row of small conical spots, and a submarginal row composed of seven very long narrow oval and three rounded upper spots, the first three from anal angle cleft at their outer end.

Expanse, ♂ $3\frac{3}{4}$, ♀ 4 inches.

Hab. Philippines (Mindanao). In coll. G. Semper and F. Moore.

Genus Isamia.

Isamia, Moore, Lep. of Ceylon, i. p. 10 (1880).

Trepsichrois (part.), Hübner.

Euplœa (*Salpinx*, section A), Marshall & de Nicéville, Butt. of India, p. 59.

Differs from typical *Salpinx* in the male having the fore wing more prolonged at the apex, the exterior margin being more oblique and waved, the hind margin more convex; no discocellular spur; with a large sericeous brand of twice the length. Hind wing with a smaller-sized discoidal glandular patch of pale compact scales.

Type *I. superba*, Herbst.

1. Isamia splendens. (Plate XXX. fig. 3, ♂.)

Euplœa splendens, Butler, P. Z. S. 1866, p. 272, ♂.

Salpinx splendens, Butler, Journ. Linn. Soc., Zool. xiv. p. 294.

Euplœa rogenhoferi, Felder, Reise Novara, Lep. ii. p. 325, ♂ (1867).

Euplœa (*Salpinx*) *rogenhoferi*, Marshall & de Nicéville, Butt. of India, p. 60 (1882).

Hab. Nepal (*Gen. Ramsay*); Sikkim (*Atkinson*); Cherra Pungi, Assam. In coll. British Museum.

2. Isamia irawada.

Euplœa irawada, Moore, Ann. Nat. Hist. ser. 4, xx. p. 45, ♂ (1877).

Euplœa (*Salpinx*) *irawada*, Marshall & de Nicéville, Butt. of India, p. 61 (1882).

Has a less brilliant blue gloss on fore wing than *I. splendens*, and which does not extend to the extreme outer margin as in that species; the discal blue spots are smaller, and do not spread towards the submarginal white spots, these latter and the marginal spots being also much smaller.

Hab. Rangoon, Burmah. In colls. F. Moore and Messrs. Godman and Salvin.

3. Isamia superba.

Papilio superba, Herbst, Natursyst. Insekten, vi. p. 14, pl. 119. fig. 3, ♀ (1793).

Male and Female. Fore wing blackish purple-brown, the basal three fourths glossed with steel-blue, a discal transverse series of five or six blue spots, the lowest elongated, a blue spot at lower end of the cell, and a bluish-white spot above it on the costa; a submarginal row of small bluish-white spots recurving from costa and decreasing in size posteriorly to a minute dot; a lower marginal series of almost obsolete dots; sericeous streak long, slender. Hind wing paler, the discoidal patch prominent, the submarginal and marginal spots pale brown.

Expanse $3\frac{1}{2}$ to $3\frac{3}{4}$ inches.

Hab. S. China; Hong Kong (*Lewis*). In coll. British Museum, and coll. F. Moore.

In both sexes of this species the blue gloss of the fore wing does not extend beyond the submarginal spots; in this respect they approach nearest *I. irawada*, as they also do in the obsolescence of the marginal rows of spots.

Mr. G. Lewis has recently presented specimens of this species to the British Museum, which he found common in Hong Kong flying over the Lantana.

4. Isamia sinica, n. sp.

Both sexes have a comparatively more triangular form of fore wing than in typical *I. superba*; these wings have similar but less glossy blue, the sericeous streak is shorter, the discal blue spots and the one at end of the cell small, the submarginal series conspicuously larger and whiter, the marginal row also white: hind wing with two rows of whity-brown ill-defined spots.

Expanse $3\frac{1}{4}$ to 4 inches.

Hab. S. China. In coll. F. Moore.

5. Isamia midamus. (Plate XXXII. fig. 5, ♂.)

Papilio midamus, Linnæus, Syst. Nat. ed. x. p. 470 (1758), xii. p. 765 (1767); De Geer, Acta Holmiæ, ix. p. 209, pl. 6. f. 1, 2, ♀ (1748); Ehret, Plantæ et Papilion. pl. xi., ♂ (1748).

Papilio midamus (part.), Linn. Mus. Lud. Ulricæ, p. 251 (1764); Fabricius, Syst. Ent. p. 479; Spec. Ins. ii. p. 52; Ent. Syst. iii. 1, p. 39.

Limnas mutabilis midamis, Hübner, Samml. exot. Schmett. i. pl. 24. f. 3, 4 (1806), *female*.

Euplœa midamus (part.), Butler, P. Z. S. 1866, p. 294.

Euplœa superba (part.), Doubleday & Hewits. D. Lep. p. 87; Moore, Catal. Lep. Mus. E.I. C. i. p. 131; Butler, Catal. Fabr. Lep. B. M. p. 2; P. Z. S. 1866, p. 271; Kirby, Catal. D. Lep. p. 9.

Nearest to *I. alopia*; fore wing with larger discal blue spots, comparatively smaller and less prominent white submarginal and marginal spots; hind wing with a submarginal and marginal row of very small white spots.

Expanse $3\frac{3}{4}$ to 4 inches.

Hab. S. China, Canton. In coll. F. Moore; British Museum.

The identification of the *P. midamus* of Linnæus rests entirely on the first published description in the 10th edit. of the 'Systema Naturæ.'

This description also agrees with the figures (Acta Holm. pl. 6. f. 1, 2), which are those of a female, and which Linnæus therein cites as an illustration, as pointed out by Mr. Butler in his Monograph of *Euplœa* (P. Z. S. 1866, p. 294). Of Linnæus's other cited illustrations, Ehret's plate xi. also refers to a male of the same species.

Here, therefore, we have all that is required for fixing the identity of the species in question; and I unhesitatingly apply it to the form of the *superba* group here described.

All recent authors, when referring to the *P. midamus* of Linnæus,

have applied the name to a common and well-known Indian and Malayan species of the genus *Trepsichrois*[1]. This erroneous identification doubtless arose from Linnæus also citing Ehret's plate 3 as one of the illustrations of his *P. midamus*, this figure well representing a male *Trepsichrois*.

6. Isamia alopia. (Plate XXXII. fig. 7, ♂.)

Danais alopia, Godart, Enc. Méth. ix. p. 177 (1819), ♂ ♀.

Papilio superba, Herbst, Nat. Ins. vi. pl. ~~102~~ 120 f. 1, 2, ♀ (nec pl. 119. f. 3).

Euplœa superba (part.), Doubl. & Hewits. D. Lep. p. 87; Moore, Catal. Lep. Mus. E.I. C. i. p. 131; Butler, Catal. Lep. Fabr. B. M. p. 2; P. Z. S. 1866, p. 271; Kirby, Catal. D. Lep. p. 9.

Distinguished by the prominency of the markings on both wings in the male and female, the two marginal rows of spots on the hind wing being large, white, and conspicuously prominent, the inner row of spots long and oval.

Hab. S. China. In coll. F. Moore.

7. Isamia marseuli, n. sp.

Euplœa marseulii, Boisduval, MS.

Allied to *I. margarita*. Differs on the fore wing in the blue tint being confined more to the base, the marginal spots being quite obsolete, and the sericeous streak only half the width, though of the same length. On the hind wing the two submarginal rows of spots are very indistinct.

Expanse $3\frac{4}{10}$ inches.

Hab. Saigon, Cochin China. In coll. Mons. C. Oberthür.

8. Isamia grotei.

Euplœa grotei, Felder, Reise Novara, Lep. ii. p. 339 (1867), ♂ only.

Hab. Cochin China.

Closely allied to *I. margarita*.

The female insect described and figured by Felder (Nov. Voy. pl. 41. f. 7) as that sex of *E. grotei*, is the female of *Stictoplœa harrisii*, Felder.

9. Isamia margarita. (Plate XXX. fig. 5, ♂.)

Euplœa margarita, Butler, Proc. Zool. Soc. 1866, p. 279; Distant, Rhop. Malayana, p. 31.

Salpinx margarita, Butler, Journ. Linn. Soc., Zool. xiv. p. 294.

Euplœa (*Salpinx*) *margarita*, Marshall and de Nicéville, Butt. of India, p. 64 (1882).

Euplœa (*Salpinx*) *adamsoni*, Marshall, Journ. Asiatic Soc. Bengal, 1880, p. 245, ♂.

Euplœa frischii, Boisduval, MS.

Hab. British Burmah; Tenasserim; Malacca; Penang.

[1] See p. 286, *antè*.

10. Isamia brahma, n. sp.

Euplœa margarita, Distant, Rhop. Malayana, pl. 4. fig. 3, ♂.

Near to *I. margarita*. Smaller in size: fore wing shorter, not so broad; the exterior margin more oblique, with an intense violet-blue gloss extending three fourths of the wing; a single minute indistinct blue dot at end of the cell, and one on costa above it; a white dot near posterior angle; the sericeous streak is only half the length of that in *I. margarita*: hind wing with two rows of small white spots.

Expanse $3\frac{1}{2}$ inches.

Hab. Hatseiga, Moulmein. In coll. F. Moore.

Has much the appearance of *Menama tavoyana*.

11. Isamia dejeani.

Euplœa dejeanii, Boisduval, MS.; Distant, Rhopalocera Malayana, p. 29, pl. 4. fig. 1, ♂ (1882).

Near to *I. chloë*: fore wing comparatively broader; the exterior margin less oblique; the posterior margin longer; both the subapical and marginal rows of spots are all nearly obsolete, showing only minute dots between the radial and upper median veins, and three between lower median and submedian; the sericeous streak is one third less in length: hind wing with the marginal rows of spots smaller; the inner series more straightly disposed.

Female. Paler than male; both rows of spots on fore wing brownish white, and with some indistinct discal and costal spots: hind wing marked as in male.

Expanse $3\frac{1}{2}$ inches.

Hab. Sumatra (*Boisd.*); Malacca (*Distant*). In colls. Mons. C. Oberthür, British Museum, F. Moore, and W. L. Distant.

12. Isamia rafflesi, n. sp.

Male. Fore wings narrower than in *I. dejeanii*. Upperside uniform dark olive-brown, glossed with golden brown: fore wing with a submarginal row of seven small white spots, a marginal lower series of smaller and very indistinct white spots; a very slender short sericeous streak between lower median and submedian veins: hind wing with a prominent ochreous-white discoidal patch, and two marginal rows of small white spots, the inner row decreasing in size to anal angle, the outer row being of uniform size. Underside paler: fore wing with both rows of marginal spots more distinct; a small spot at lower end of the cell; another contiguous spot between the upper and middle median veins, and an elongated spot below the latter: hind wing with both marginal rows of spots as above; a small spot near the cell between the first and second subcostal veins, and another between the upper and middle median veins.

Female. Slightly darker; the marginal rows of spots the same, except that the inner row are larger.

Expanse $3\frac{1}{2}$ inches.

Hab. Java (*Wallace*). In coll. Messrs. Godman and Salvin.

13. Isamia fabricii, n. sp.

Euplœa fabricii, Boisduval, MS.

Near to *I. rafflesi*. Upperside uniform olive-brown: fore wing with the sericeous streak somewhat longer and placed nearer the base; the submarginal row of spots less distinct, the marginal row being almost obsolete: hind wing with the two rows of very small spots, the inner row obsolete from the upper median.

Expanse $3\frac{5}{10}$ inches.

Hab. Cochin China. In coll. Mons. C. Oberthür.

14. Isamia chloë. (Plate XXIX. fig. 7, ♂.)

Danais (*Euplœa*) *chloë*, Guérin, in Delessert's Voy. Inde, ii. p. 71 (1843).

Salpinx chloë, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.

Euplœa chloë, Distant, Rhop. Malayana, p. 30, pl. 4. fig. 2, ♂, pl. 2. fig. 5, ♀.

Euplœa clerckii, Boisduval, MS., ♀.

Hab. Malay peninsula (Province Wellesley).

15. Isamia singapura, n. sp.

Nearest to *I. chloë*.

Male and Female. Of a more uniform and duller tint, the colour being dark olive-brown; in the male the basal area is slightly pitchy brown and washed with violet-blue[1] in certain lights; the five apical spots on fore wing similar but more prominent and narrower, followed by two pale obsolete spots and a minute white dot at the posterior end; the marginal dots less distinct; the sericeous streak somewhat narrower and less distinct: hind wing with smaller spots. Underside much greener olive than in *I. chloë*; all the spots on both wings more distinct; the discal spots on hind wing very prominent.

Expanse, ♂ $3\frac{3}{4}$ inches.

Hab. Singapore. In coll. British Museum.

16. Isamia sophia, n. sp.

Male. Similar to *I. singapura*, but somewhat paler and of an ochraceous olive-brown colour, without any violet-blue reflections; the spots of the inner row on the fore wing comparatively shorter, and the outer row larger: hind wing similar; the two rows of spots also similar.

Female paler than the same sex of *I. singapura*, with the apical spots much more distinct, and the rows on the hind wing much smaller.

Expanse, ♂ $3\frac{4}{8}$, ♀ $3\frac{7}{8}$ inches.

Hab. Sumatra (*Buxton*). In colls. F. Moore and British Museum.

[1] In typical Malaccan specimens of *I. chloë* the blue gloss is prominent, and extends over two thirds of the wing.

17. Isamia ægyptus.

Euplœa ægyptus, Butler, Proc. Zool. Soc. 1866, p. 277.
Salpinx ægyptus, Butler, Journ. Linn. Soc., Zool. xiv. p. 295.
Hab. S. Borneo; Billiton; Sumatra.

18. Isamia lowei, n. sp.

Nearest to *I. ægyptus*. Upperside olivaceous-brown, palest externally; no bluish-violet tint; apical white spots larger; no marginal spots: hind wing with very small and indistinct submarginal and marginal spots.
Expanse $3\frac{1}{4}$ inches.
Hab. Borneo. In coll. Mons. C. Oberthür.

19. Isamia dameli, n. sp.

Duller-coloured than in any of the allied forms of *I. chloë*. Upperside dark fuliginous-brown: fore wing also smaller and comparatively narrower, with five upper submarginal distinct white spots two thirds less in size, and one above posterior angle; a marginal row of five central and three lower very minute spots; sericeous streak narrow: hind wing with two rows of very small white spots; discoidal patch brighter-coloured.
Expanse $3\frac{3}{8}$ inches.
Hab. Shanghai (*Damel*). In coll. G. Semper.

Tiruna, n. g.

Fore wing comparatively shorter than in typical *Isamia*; costa less arched; exterior margin less oblique, somewhat rounded towards the apex and less convex at the posterior angle; the posterior margin very convex; upper discocellular with a short spur emitted within the cell; sericeous brand narrow, strongly impressed: hind wing shorter and broader, with a distinct discoidal glandular patch.
Type *T. roepstorffii*.

1. Tiruna roepstorffi, n. sp. (Plate XXXII. fig. 8, ♂.)

Male. Colour and pattern of markings similar to *Karadina andamana*. Pale olive-brown, but darker than in *K. andamana*: fore wing with a similarly disposed marginal and submarginal row of olivaceous-white spots; the marginal series smaller, conical, and terminating at the apex; the three lower submarginal spots indented on their outer edge; a discal row of much paler spots, and a similar rounded spot at lower end of the cell; sericeous streak blackish: hind wing with two rows of spots; the marginal row smaller, conical, and the submarginal narrower than those in *K. andamana*; discoidal patch olivaceous-white.
Expanse $3\frac{1}{2}$ inches.
Hab. Andaman Isles. In coll. G. Semper.

2. TIRUNA OCHSENHEIMERI.

Euplœa ochsenheimeri, Lucas, Revue et Mag. Zool. 1853, p. 315, ♂ (nec Moore).

The type specimen of this species is smaller than *Isamia chloë*, somewhat paler and without any blue gloss on the basal area: fore wing with the two costal spots above the cell, and the submarginal series more prominent, larger, and white; the marginal row also more distinct; an indistinct brownish-white spot at lower end of the cell, and a discal series of four spots beyond; sericeous streak short and black: on the hind wing the marginal and upper submarginal row of three spots are less distinct.

Expanse, ♂ 3 inches.

Hab. Java. In coll. Paris Museum.

The above description is taken from the type specimen in the Paris Museum, for the opportunity of examining which I am indebted to the kindness of Mons. C. Oberthür. It is the only specimen known to me.

ANADARA, n. g.

Male with comparatively shorter wings than in typical *Isamia*. Fore wing with the costa but slightly arched; apex somewhat acuminate; exterior margin shorter and more oblique, slightly sinuous, more uneven and slightly angular below the apex in female; male with a short, extremely broad but scarcely perceptible sericeous streak: hind margin shorter than in *Isamia*, very convex; first subcostal branch touching the costal; second, third, and fourth branches at equal distances apart and nearer to end of the cell; upper discocellular acutely bent inward at its middle, and emitting a short spur within the cell; cell very broad. Hind wing with a small upper discoidal ochreous glandular patch, the greyish-brown colour of the anterior border extending to the edge of median vein; cell very long and broad at its end.

ANADARA GAMELIA.

Salpinx gamelia, Hübner, Samml. exot. Schmett. Bd. ii. pl. 10. f. 1, 2 (1806–27); Butler, Journ. Linn. Soc., Zool. xiv. p. 295 (1878).

Euplœa gamelia, Butler, P. Z. S. 1866, p. 279.

Euplœa faber, Zinken-Somm. Nova Acta Acad. Nat. Cur. xv. p. 186, pl. 16. figs. 18, 19, ♂ ♀ (1831).

?*Euplœa lorraini*, Chapman, Ent. Monthly Mag. 1873, p. 263, ♀.

Hab. Java.

E. *Two "sexual marks" or scent-producing organs on fore wing.*

DORICHA, n. g.

Fore wing more angular than in typical *Stictoplœa*; costal margin less arched, the apex acute; exterior margin very oblique; posterior margin shorter; angle acute; discocellulars bent in the middle;

lower radial from the angle; no inner spur; male with two lengthened sericeous brands between lower median and submedian veins: hind wing less convex externally.

Type *D. sylvester*.

1. Doricha sylvester.

Papilio sylvester, Fabricius, Ent. Syst. iii. 1, p. 41 (1793); Donovan, Nat. Rep. iv. pl. 129 (1826).

Euplœa sylvester, Butler, Catal. Fabr. Lep. B. M. p. 3.

Danais sylvestris, Godart, Enc. Méth. ix. p. 182 (1819).

Stictoplœa sylvester, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Euplœa melpomene, Butler, P.Z.S. 1866, p. 300, fig. 2 (p. 298), ♂.

Hab. N. Australia (Cape York).

2. Doricha pelor.

Euplœa pelor, Doubleday & Hewits. Gen. D. Lep. p. 88, pl. 11. fig. 1 (1847); Chenu, Enc. d'Hist. Nat. *Pap.* p. 64, f. 153.

Stictoplœa pelor, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Hab. N. Australia (New Holland).

3. Doricha (?) rogeri.

Crastia rogeri, Hübner, Zutrage exot. Schmett. f. 947, 948 (1837), ♀.

Hab. Unknown.

This species does not exist in any of the collections that I have examined.

Genus Narmada.

Narmada, Moore, Lep. of Ceylon, i. p. 13 (1880).

Euplœa (*Stictoplœa* part.), Marshall & de Nicéville, Butt. of India, p. 90 (1882).

Differs in both sexes from typical *Stictoplœa* in the more triangular form of both the fore wing and hind wing, the fore wing being more acuminate, and the two sericeous brands shorter; upper discocellular with a short spur emitted within the cell.

Pattern of markings like *Crastia* (*core*).

Type *N. coreoïdes*.

1. Narmada coreoïdes. (Plate XXIX. fig. 10, ♂).

Euplœa coreoïdes, Moore, Ann. Nat. Hist. ser. 4, xx. p. 44 (1877); Butler, Journ. Linn. Soc., Zool. xiv. p. 301.

Euplœa (*Stictoplœa*) *coreoïdes*, Marshall and de Nicéville, Butt. of India, p. 96 (1882).

Hab. S. India (Nilgiris).

2. Narmada montana.

Euplœa montana, Felder, Reise Novara, Lep. ii. p. 329 (1867), ♂ ♀.

Narmada montana, Moore, Lep. of Ceylon, i. p. 13, pl. 6. f. 1, ♂ (1880).

Euplœa (*Stictoplœa*) *montana*, Marshall and de Nicéville, Butt. of India, p. 91 (1882).

Euplœa lankana, Moore, Ann. Nat. Hist. ser. 4, xx. p. 44, ♂ (1877).

Stictoplœa lankana, Butler, Journ. Linn. Soc., Zool. xiv. p. 302.

Hab. Ceylon.

3. Narmada consimilis.

Euplœa consimilis, Felder, Reise Novara, Lep. ii. p. 329 (1867).

Hab. Java; Sumatra (*Sachs*). In coll. Messrs. Godman and Salvin.

Genus Stictoplœa.

Stictoplœa, Butler, Journ. Linn. Soc., Zool. xiv. p. 301 (1878).

Euplœa (*Stictoplœa* part.), Marshall & de Nicéville, Butt. of India, p. 90 (1882).

Male. Wings broad. Fore wing lengthened triangular, costal margin slightly arched, apex somewhat rounded; exterior margin oblique, posterior margin slightly convex; with two broad lengthened sericeous brands between the lower median and submedian veins; upper discocellular with a very short spur emitted within the cell. Hind wing broad, with the costal margin much arched in the middle; exterior margin convex, waved.

Type *S. gloriosa.*

1. Stictoplœa hopei.

Euplœa hopei, Felder, Reise Novara, Lep. ii. p. 328 (1867), ♂.

Stictoplœa hopei, Butler, Journ. Linn. Soc., Zool. xiv. p. 302.

Male. Smaller than type specimen of *S. binotata*; spots on fore wing similar but smaller: hind wing with a complete row of prominent submarginal white spots, the marginal spots nearly obsolete, except three very minute dots in the middle.

Expanse $3\frac{3}{4}$ inches.

Hab. Assam (*Felder*); Silhet. In coll. British Museum.

2. Stictoplœa binotata. (Plate XXX. fig. 4, ♂.)

Stictoplœa binotata, Butler, Journ. Linn. Soc., Zool. xiv. p. 302 (1878).

Euplœa (*Stictoplœa*) *hopei*, Marshall & de Nicéville, Butt. of India, p. 92, pl. 2. f. 18, ♂ ♀ (1882).

Hab. Silhet, Cachar, Darjiling. In coll. British Museum.

3. Stictoplœa regina, n. sp.

Comparatively smaller than *S. binotata*: fore wing of a violet-blue with less gloss; submarginal spots half the size of those in that species, the discal spots reduced to the two between the radial and middle median, and a very minute spot at lower end of the cell: hind wing deep rufous-brown, immaculate.

Expanse, ♂ $3\frac{1}{2}$ inches.

Hab. Cachar. In coll. British Museum.

4. Stictoplœa harrisi. (Plate XXX. fig. 8, ♂.)

Euplœa harrisii, Felder, Reise Novara, Lep. ii. p. 328, ♂ (1867).

Euplœa grotei (♀ only), Felder, loc. cit. p. 339, pl. 41. f. 7, ♀.

Stictoplœa grotei, Butler, Journ. Linn. Soc., Zool. xiv. p. 302; Moore, P. Z. S. 1878, p. 824.

Euplœa (*Stictoplœa*) *grotei*, Marshall and de Nicéville, Butt. of India, p. 91 (1882).

Eulpœa grotei, Distant, Rhop. Malayana, p. 36, pl. 3. f. 3, ♂ (1882).

Euplœa boisduvalii, Roger, MS., ♀.

Hab. Cochin China (*Felder*), Upper Tenasserim, Moulmein, Malacca. In coll. British Museum and F. Moore.

The insect described by Dr. Felder as the male of *E. grotei* is a species of *Isamia*.

5. Stictoplœa tyrianthina, n. sp.

Male. Upperside—fore wing similar to that of *S. harrisii*, the blue marginal spots less distinct above the posterior angle, the two sericeous streaks each one third shorter and not quite so broad as in that species: hind wing with only three small white upper submarginal spots, the marginal spot being scarcely visible. Underside similar; the marginal spots on fore wing less distinct, the marginal series on the hind wing and the upper submarginal spots small.

Expanse $3\frac{1}{2}$ inches.

Hab. Borneo (*Pryer*); Sumatra (*Bock*). In coll. F. Moore and H. G. Smith.

6. Stictoplœa pygmæa, n. sp.

Allied to *S. microsticta*. Smaller in size: fore wing in both sexes with smaller discal spots and larger marginal spots, the latter series triangular in form in the male and somewhat confluent with the marginal series in the female, the marginal dots being more distinct; the cell-spot is also larger. Hind wing in male with three upper submarginal minute spots only, the female also showing indistinct marginal spots.

Expanse, ♂ 3, ♀ $3\frac{1}{8}$ inches.

Hab. Cachar. In coll. British Museum.

In *S. microsticta* the expanse of male is $3\frac{7}{8}$ inches.

7. Stictoplœa microsticta.

Stictoplœa microsticta, Butler, Journ. Linn. Soc., Zool. xiv. p. 302 (1878).

Hab. ——? In Banksian coll., British Museum.

8. Stictoplœa picina.

Euplœa picina, Butler, Proc. Zool. Soc., 1866, p. 280, pl. 30. f. 1, ♂.

Stictoplœa picina, Butler, Journ. Linn. Soc. Zool. xiv. p. 302.

Hab. Sumatra.

9. Stictoplœa inconspicua.

Stictoplœa inconspicua, Butler, Journ. Linn. Soc., Zool. xiv. p. 302, ♂ (1878).

Hab. Sumatra.

10. Stictoplœa lacordairei, n. sp.

Euplœa lacordairei, MS. Hewits. coll.

Male. Fore wing dark purplish violet-brown; suffused externally with blue; a submarginal row of six violet-white spots, the upper one minute, the second and fifth the largest, third, fourth, and sixth of equal size; two narrow sericeous streaks. Hind wing pale brown, darker at the base, with a submarginal upper row of three small white spots.

Expanse $3\frac{1}{4}$ inches.

Hab. Java. In coll. Hewitson, British Museum.

11. Stictoplœa gloriosa.

Euplœa gloriosa, Butler, P. Z. S. 1866, p. 293, pl. 29. f. 4, ♀.

Stictoplœa gloriosa, Butler, Journ. Linn. Soc., Zool. xiv. p. 301 (1878).

Euplœa superba, Vollenhoven, Tijd. voor Ent. ser. 2, i. p. 209, pl. 10. f. 1, ♂ (1866).

Euplœa schlegelii, Felder, Reise Novara, Lep. ii. p. 327, pl. 41. f. 5, ♂ (1867).

Euplœa badoura, Kirby, Syn. Catal. D. Lep. p. 16 (1871).

Hab. Celebes.

12. Stictoplœa lætifica.

Euplœa lætifica, Butler, Proc Zool. Soc. 1866, p. 292, pl. 29. fig. 3, ♀.

Stictoplœa lætifica, Butler, Journ. Linn. Soc., Zool. xiv. p. 302.

Hab. Philippine Islands.

13. Stictoplœa dufresneyi.

Danais dufresneyi, Godart, Enc. Méth. ix. p. 815 (1823).

Hab. Philippines.

14. Stictoplœa swinhoei.

Euplœa swinhoei, Wallace, Proc. Zool. Soc. 1866, p. 358.

Stictoplœa swinhoei, Butler, Journ. Linn. Soc., Zool. xiv. p. 302.

Hab. Formosa. In coll. Messrs. Godman and Salvin.

15. Stictoplœa palla.

Euplœa palla, Butler, Proc. Zool. Soc. 1866, p. 284.

Stictoplœa palla, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Euplœa payeni, Felder, Reise Novara, Lep. ii. p. 329 (1867).

Hab. Aru Islands.

16. STICTOPLŒA WATSONI, n. sp.

Male. Dark purplish violet-brown, suffused with intense but not shining blue in some lights. Fore wing with a submarginal medial row of four very small blue spots, the upper spot somewhat largest and dentate; two long sericeous streaks. Hind wing with a submarginal upper series of three geminated bluish-white spots followed by three single small spots.

Expanse $4\frac{1}{4}$ inches.

Hab. Bouru (*Wallace*). In coll. Hewitson, British Museum.

17. STICTOPLŒA INÆQUALIS.

Stictoplœa inæqualis, Butler, Journ. Linn. Soc., Zool. xiv. p. 302, ♂ (1878).

Hab. Amboina.

18. STICTOPLŒA MŒSTA.

Euplœa mœsta, Butler, Proc. Zool. Soc. 1866, p. 284, fig. 3 (p. 281), ♂.

Stictoplœa mœsta, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Hab. New Guinea (Dorey, Port Moresby).

19. STICTOPLŒA IMMACULATA.

Stictoplœa immaculata, Butler, Journ. Linn. Soc., Zool. xiv. p. 303, ♂ ♀ (1878).

Hab. New Guinea (Port Moresby).

20. STICTOPLŒA PAPUANA.

Euplœa papuana, Reakirt, Proc. Acad. Nat. Sci. Philadelphia, 1866, p. 240.

Hab. New Guinea.

21. STICTOPLŒA DOLESCHALLII.

Euplœa doleschallii, Felder, Wien. ent. Monats. iii. p. 267, pl. 5. f. 2 (1859).

Stictoplœa doleschallii, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Hab. New Guinea (Port Moresby).

22. STICTOPLŒA TRISTIS.

Euplœa tristis, Butler, Proc. Zool. Soc. 1866, p. 284.

Stictoplœa tristis, Butler, Journ. Linn. Soc., Zool. xiv. p. 303.

Hab. New Hebrides (Aneiteum).

The following species, referred by authors to the genus *Euplœa*, have not been verified:—

EUPLŒA DRYASIS.

Papilio dryasis, Fabricius, Ent. Syst. iii. p. 39 (1793); Jones, Icon. t. 85. fig. 1; Donovan, Nat. Repos. v. pl. 158 (1827); Butler, Catal. Fabr. Lep. Brit. Mus. p. 3.

Hab. Unknown.

F. C. Moore lith. ad nat.

Mintern Bros. imp.

MIMETIC SPECIES OF EUPLOEINÆ.